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AND ESSENTIAL OIL REVIEW

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FEBRUARY, 1935

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VOL. XXIX No. 12

The American Perfumer
AND ESSENTIAL OIL REVIEW

FEBRUARY, 1935

Established 1906

Vol. XXIX, No. 12

The Administration and Distribution

by HONORABLE DANIEL C. ROPER

Secretary of Commerce

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THE greatest productive equipment the world had ever known lay partially idle; millions of people wanted and needed the output of those stagnant plants and factories, in addition to the vast surplusses on hand. This situation was the cruel paradox of America's depression—want in the midst of plenty. A vast potential demand existed and a great productive capacity able to supply that demand could not be utilized.

Striking and encouraging progress has been made in remedying these tragic conditions. Nevertheless, we still find that in the United States the facilities to produce a volume of goods, the quality and quantity of which have never been equalled, are yielding only a fraction of their potential output. And we still see about us millions of people depending on relief and charity for an inadequate supply of food, clothing and shelter.

After an impossible and exaggerated venture, ending tragically in 1929, America came to earth to face facts as they existed. Gradually the realization became clear, not that our technical processes had run away with us, but rather that our economic reasoning and procedure had lagged far behind the necessities of the times. American production was unrivalled in its excellence. The finest technical efforts in the world had gone into its expansion and perfection. The distributive system of the United States, on the other hand, like Topsy, "just growed," and, as later facts demonstrated, not very well, at that.

Faced with this situation and striving for the balance and equilibrium necessary for recovery, a school of economic thought came into being, the methods of which were traceable to the expedient of Procustes, who either elongated or compressed his guests to fit his singularly unflexible bed. In other words, a doctrine was put forth advocating reduction of output, curtailment of expansion, and limitation of the use of machinery.

It must be clear to all who consider the problem that such a plan carried out over a long period in our form of economy is suicidal. In justice to its proponents, it must be said that the policy was recommended only as a temporary expedient, until we could remedy our backward and faulty theory and methods of distribution. In any case, it is thus agreed that the only permanent solution to the depression's dis-

equilibrium lies in the re-directing and re-shaping of American distributive processes.

Since the advent of the Roosevelt Administration in 1933, comprehensive effort has been given to this problem. While it was found necessary in some cases to limit production, care was taken to make the point clear that such measures were taken only pending a restoration of a sound method of spreading and distributing purchasing power, as well as goods.

The Administration recognized the fact that, as is implied in the preceding sentence, the distribution problem is comprised of two phases. The first concerns distribution in a figurative sense, involving the existence, location and volume of purchasing power, its relation to monetary exchange, its effect on, as well as its reaction to, production and prices and the problems of credit, marketing and income. The second phase of the problem relates to the actual physical transportation and dissemination of raw materials and finished products.

The efforts of the Administration on the first phase of the problem are widely known, although perhaps often misunderstood. Faced with a situation in which purchasing power had shrunk to a fraction of its former levels, money was being hoarded in and out of banks, the credit wells had dried up and a great segment of the nation could not receive for its produce enough to buy the necessities of its own living requirements. The Administration set to work on a wide front to restore order out of chaos.

Parity for Farm and City

Through the government's agricultural program, the farming population of the United States, for whom depression had been chronic over a period of many years, received an addition to their income of a billion dollars in 1934. The ratio of prices received by farmers to prices they paid had dropped in February, 1933, to fifty-four per cent of the pre-war level.

The reduction of purchasing power which ensued from such a price disparity was felt not only on the farm, but also in city markets. The ratio between the two prices has now been raised to about eighty-one and farmers have been able to buy once again. Sales of rural general stores have increased by more than 88 per cent from March, 1933, to November, 1934, after adjusting for seasonal differences. That purchasing power in all lines has been greatly restored is indicated by the statistics, which show increases in the same period in both variety and chain-store sales of over 20 per cent and in department store sales of almost 30 per cent.

These figures reflect the fact that not only has the income to the farm population been realigned so as to permit renewal of purchasing, but also that industrial centers now have not merely demand for goods, but *effective* demand. Payrolls of factory employees have increased in the twenty-month period ending in November, 1934, by about sixty per cent. Here, again, more equitable and effective distribution of income has been accomplished, largely due to the National Recovery Administration, increased confidence and a soundly renovized banking and credit situation.

The Preventive Program

The activities of the government cited above are a few of the remedial measures taken to restore lost purchasing power. Not to be overlooked is a future program of a preventive nature for a nation-wide unemployment reserves system, which will have the effect of sustaining purchasing power during periods of declining business activity and thus cushioning the fall. This nation has, let us hope, learned the lesson of preparing in times of prosperity for the rigid exigencies of depression.

Supplementing this distribution of income is the distribution of goods, in which phase of the problem the Department of Commerce plays a vital role. Charged with fostering, promoting and regulating the waterborne traffic of America, the marine bureaus of the Department are working in unison for the purpose of aiding our shipping in every possible way. Among the developments now under way are the perfection of technical devices of all varieties for safe and expeditious movement of traffic, the increased availability of necessary statistical and economic information and vigorous promotive cooperation with shipping interests by officials of the Department. It is also the aim to clarify the entire question of subsidies to water carriers in order that the difference in costs between the United States and foreign nations may be equalized. In the future these grants, without euphemism or dissemblance, should be known by their right name—subsidies. The minimum amount necessary to compete with subsidized foreign lines will be determined and the administration of subsidies placed on a practical and straightforward basis.

Work on Trade Routes

At the same time, the Department is conducting an intensive study of trade routes, in order that the most economical methods of marine shipping may be discovered and actively furthered. The detailed information concerning vessels and routes of the American shipping trade is, of course, indispensable in the determination of the government's shipping policy. The data which will become available will contribute, also, to the rationalization of the American merchant marine, indicating savings to be effected by modifying routes and terminals and effecting more economic transportation.

The regulatory powers which the Shipping Board Bureau is now exerting are further contributions to an economically sound water transportation system. With authority vested in it by the three Shipping Acts of 1916, 1920 and 1928, the Bureau approves conference agreements setting equitable rates, thus making economic freight services for the shipper as well as profitable operations for the ship-owner. Through the Bureau's supervision, unfair competitive shipping practices are eliminated, while at the same time conferences between operators for the elimination of destructive competition in foreign trade are prompted.

Another phase of distribution in which the Commerce Department is doing pioneer work is that of air trans-

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Out of the Past—Choose the Future

by RUTH HOOPER LARISSON

PEOPLE are funny about museums . . . mentally card indexing them as nice places where a much civilized, leisure class indulge in observing the beauty of the past and patient school teachers take obstreperous children for applications of a thin and seldom permanent veneer of "ART." When one travels abroad one visits the museums; when Aunt Nellie breezes in from Wichita one thinks it is right and proper to show her Grant's tomb, Radio City—and the Metropolitan Museum!

But the average business man is so absorbed with the complexities of his contemporary life that he hasn't time (he'll tell you) to glance back through history and see what took up the time of his great-great or even great-great-great grandfather. Out of the importance of modern life there may be a few things so fundamentaly beautiful, practical and helpful (helpful in living and not merely in money getting) that they will last over the generations to come and form


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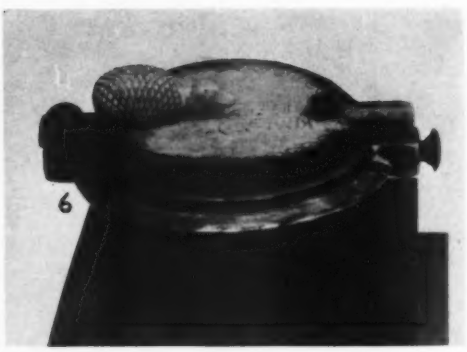
All Photographs Used in this Article Are by Courtesy of the Metropolitan Museum of Art

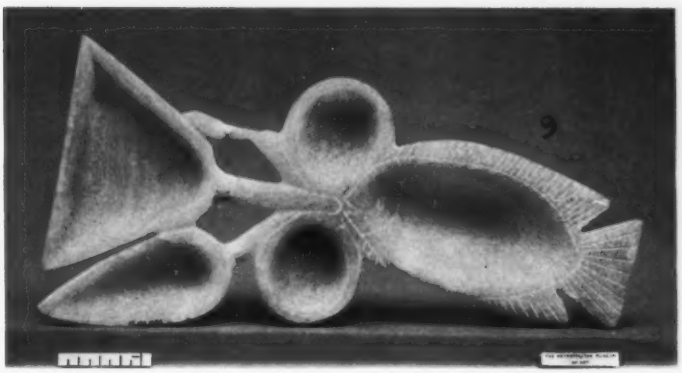


the museums of the future's past. The museums we walk through today are the landmarks of just such achievements in the past. Certainly they *are* worthy of being considered by even the average business man. And because the majority of toilet goods manufacturers have, perhaps, too much of the "average business man's" point of view, they, too, overlook the wealth of knowledge and ideas open to them in the museums — theirs merely for the taking! The best artists, designers and decorators of today have their training and background in the work of yesterday. The toilet goods manufacturer has the same source of inspiration that they have and the only difference lies in the fact that he seldom, if ever, uses it!

I believe that a series of articles (illustrated) of toilet goods packages and containers from early history down through the ages should not only have interest for the toilet goods manufacturer but be tangibly helpful to him both as a source of ideas and as a stimulus for "new" designs. So let me recommend to the manufacturer and his staff this method of approach to the new package. Parantheticallly speaking, it's also pleasant to know that when you borrow from far enough back in the past you can proudly admit it—and you won't be branded as "stealing" as you are if you bring out a perfume bottle so close in shape, style and tempo to the one John Jones launched two months ago that the public must stop and examine them to tell one from the other.

The ABCs of the method include two approaches. One, is to study ancient receptacles for cosmetics and toilet goods, ascertaining how and in what manner they can be adapted for modern use. The second, and more complex approach is to study everything ancient and from it draw inspiration, design, mass and shape motifs. Perhaps a fabric from ancient China will contain a flower design ideal for a bath powder package (I know of one that does) —or a marble Greek figure set the rhythm and tempo for a perfume bottle. (Many of them will). Of course the bottle isn't going to *look like* the figure—but it will have its inspiration from the marble. The first method is easy enough for the layman in art to follow while the latter is more successfully applied by the artist and designer. However, if you are determined to dabble in designing your own packages learn how to do it as professionals do—you may hit a big success along the way and you will doubtless have a chance to learn something from your failures. We'll start in with the first approach and in later articles "warm up" to the second. I have made a

small selection of Egyptian cosmetic receptacles from the Metropolitan Museum of Art, in New York, which I feel are extremely applicable to toilet goods packaging today. All the photographs illustrating them have been kindly lent by the Museum for this purpose.



(1) From Thebes, XVIII Dynasty, comes a toilet vase with lid; inscribed with titles and cartouche of Thut-nose III. It is of alabaster with gold leaf on lip and edges of lid and foot. The shape of this container seems to be an old favorite with the Egyptians. It is very easy to hold, pick up and set down and balanced so that it does not tip over. Perhaps we'd think alabaster and gold leaf a bit too extravagant for the Twentieth Century but remember this belonged to a king. It would be a very practical shape for a jar and the same effect of the lid could be achieved with an inner thread engaging the inner lip with the lid.

(2) Somewhat similar to the jar just described, this alabaster ointment jar and cover offers an interesting variation from the above form. Both the jar and cover are inscribed with the name of Pepi I, VI Dynasty, and were made to celebrate his first jubilee. The placing of the delicate carving is worthy of careful consideration and offers an ideal position and shape for a label. Again we notice the effect of the beveled lip and lid and realize how satisfying a finish it gives.

(3) Here are a group of five kohl pots, the four largest of blue marble and the little almost spherical one of diorite. The first on the upper row is XII Dynasty, the second VI to IX Dynasty and the third XII Dynasty. The two lower ones are pre-Dynastic. Here are forms beautiful in proportion and balance and very practical for cosmetics. The one in the lower right hand corner would serve ideally for creams, particularly in plastic. The term kohl was not limited to charcoal for outlining the eyes but was used, it seems, as a more or less general term for any cosmetics. Kohl, however, for the eyes was applied by means of long blunt sticks and after some experiment with similar sticks I have found that both eye shadow cream, lip and face rouge can be most successfully applied in this manner. Sometimes I wonder if our lipsticks are not too broad in diameter to allow for a careful outlining and then filling in of the lips? Perhaps thought in this direction would lead to improvements.

(4) Here are three most charming shapes. The first at the extreme left is a kohl pot of Basalt, XII to XVII Dynasty. The center one is a painted stone dish, late Dynasty, and the third, a kohl pot of Basalt XII to XVII Dynasty. These would be heavenly shapes for rouge, sachet, bath salts, face masque powders, and creams.

(5) Here are three jars from a set of Princess Sat-hathor-iunut of the XII Dynasty. They are of obsidian and mounted in gold. The cosmetic vases

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Taxes Engage Washington Attention

Need for Revenues Is Great and All Sources Are Being Scanned by Congress Committees

by C. W. B. HURD

WASHINGTON, Feb. 11.—New Federal expenditures of many billions of dollars now being arranged by a Congress that raises a protest only against the "conservatism" of proposed amounts form the prelude to a discussion of taxes that will become of major importance before this session is concluded. The taxation program has not yet been broached publicly although it is a matter of daily study by the House Ways and Means and the Senate Finance committees.

In the judgment of the best-informed members of Congress the best that can be looked for is a continuation of current imposts without increases in current rates or the creation of new taxes. There is small if any possibility of reductions or repeal of such taxes as the excise ones.

So-called temporary taxes which have expired, as for instance the one on bank checks that lapsed on January 1, probably will be resumed for another stipulated period.

There are numerous indications of this program, of which not the least is that there are no elections this year and therefore members of Congress need not fear going before their constituents and defending their action in continuing taxes sometimes labeled with the adjective "nuisance." If business conditions improve in the next year and make possible some reductions, then 1936 will be a most propitious time to take such action from a political standpoint.

Without retailing figures that have become tiresome by repetition, the taxation picture is neatly framed by a broad statement of the current fiscal affairs of the Government. As these stand today, the Federal establishment is operating substantially on a "balanced budget" so far as the permanent Government operations are concerned. In other words, the revenues offset the permanent, recurring expenditures. On the other hand, emergency expenditures raise the total of costs of the Federal Government to virtually twice the Governmental income.

The difference between income and outgo obviously must be met by frequent recourse to borrowing with consequent increases in the national debt, whether it shows up on balance sheets as bonded indebtedness or in the more nebulous form of short-term borrowings.

There are now before Congress two bills, both of which undoubtedly will be passed, that will provide for still further huge expenditures by the Federal Government.

One of them, already passed by the House and at this writing being studied by the Senate Finance Committee, carries in the form of a resolution authorization for the spending of $4,880,000,000, divided between $4,000,000,000 for a long-range public works program and $880,000,000 for immediate relief usage.

The latter sum is expected to tide relief work over until the late Fall when it is expected that the public works program will have taken up most of the unemployment slack.

The second bill is the social security program, which carries comparatively little money to be spent from the Federal pocketbook except for old-age pensions which in its first year of operation, as now planned, will cost in excess of $500,000,000 and will mount steadily thereafter through a period of about 40 years.

There is no disposition to cut that cost; rather, powerful lobbies and blocs in Congress are at work in an effort to raise the Federal commitment for old-age pensions.

The old-age pension cost is one that will hereafter become an established, recurring expense to be met out of revenues or, in other words, to be raised by taxes.

Its cost will be added to that involved in carrying

(*Continued on Page* 616)

The Industry's Tax Position

IN view of the facts brought out in this article by our Washington Bureau, it might seem that the work planned by the Committee of the Toilet Goods Industry on the excise taxes would be in vain.

This is very far from the case!

As Mr. Hurd points out in this article, the need for revenues this year will be intense. There will be proposals for all sorts of taxes, *not* to take the place of the excise taxes, *but to be added to those imposts*. There have even been hints that some attempt might be made to raise the rates on toilet preparations and particularly on soaps and dentifrices which now carry a tax of five per cent.

Every effort of the industry toward a prevention of increased burdens on toilet preparations should have full support. In addition, clarification of the provisions of the excise tax in any new bill which may be passed is badly needed as the present chaotic collecion situation demonstrates. There must be no shirking in this matter if even heavier burdens are to be avoided.—EDITOR.

Out of the Past — Choose the Future

(*Continued from Page 605*)

(cream jar we would call them today) are two of a set of three identical containers and the kohl pot has a small round opening under the lid which does not show up in this photograph. It looks like an early "treatment line" to me! The shapes are similar to the first two shown but careful comparison will indicate the variations and how variations can be made without spoiling the general proportions, feeling and mass of a container. It is an excellent example of that kind of thing. Black plastic and brass mounted caps would duplicate them and they'd still be grand enough for a princess!

(6) Here, I believe, is something very exciting. Three unguent boxes which offer an entirely new design for cream or powder jars. The first is of the XIX Dynasty, Ramese, II (1292-1225 B.C.) and is made of ivory. On the lid appears the King's name and that of his queen Nefretiri. There is something still inside and it appears as though it might be rouge of some kind. There seems to be a swivel hinge at one side and a raised handle to swing the cover off on the other side. There is also a button-like projection from the dish to which perhaps a cord or loop of some other material was used to fasten down the top securely. An interesting armadillo-like animal decorates the lid. The other two jars of the XVIII Dynasty show similar dishes and similar ways of fastening the lid, but all work on the swivel bases which is something modern day cosmetics have not employed for such containers. The beautifully delicate tracery of design on the last two is quite visible in the photograph and should inspire some manufacturer to trot up to the Museum and make a more careful study of it for his own use. I think it is one of the most thrilling old designs that I have ever come across and I only hope it will be nobly reproduced so that thousands and thousands of women can once more enjoy its use!

(7) A Kohl tube of wood carved to imitate two reeds bears the name of King Amenhotep and Queen Tiy, XVIII Dynasty, Reign of Amenhotep III (1411-1375 B.C.) The shape, proportions and beautifully decorative carving inspire, to me, an eyebrow pencil and mascara case. But don't limit it to that for there are many other containers which it may inspire in you!

(8) A pallette with wells containing six colors. At the top it bears the names of Amenhotep III "Nibmare Beloved of R^{a}" and it is of ivory. XVIII Dynasty, reign of Amenhotep III. It is not practical to go into the details of Egyptian methods of makeup in this article for the subject has been well covered elsewhere. It is sufficient to stress with what beauty and simplicity they designed a pallette for rouges; and it instantly brings to my mind the charming Christy gift set, also a pallette containing eight shades of lip and cheek rouge, which came on the market quite recently.

(9) From the XVIII Dynasty, (Empire Period 1580 to 150 B.C.) comes this dish of alabaster in the shape of a fish and lotus. Probably used for salt and condiments on the table, possibly for cosmetics. Certainly this is an inspiration for a make-up ensemble and perhaps some manufacturer will be sufficiently moved to give it its rightful place in modern day cosmetics.

(10) From Thebes, XII Dynasty, comes this cosmetic vase of blue marble in the form of two trussed ducks. It is a delightfully quaint shape and I wonder if a bath oil wouldn't be an ideal product for such a container. The shape and form make it practical to grasp even with oily hands. If you think your feminine customers would remain cold to the idea of a pair of "trussed ducks" you might stretch a point and call them swans; (ladies, ever since Leda's time have adored swans!)

The Administration and Distribution

(*Continued from Page 602*)

portation. The Bureau of Air Commerce has planned and directed its activities so that a basis may be formed for the establishment of a coordinated national air transportation program in this country which will be unequalled in efficiency throughout the world. The relatively new industry of aviation is in a fortunate position, able to profit from the mistakes of other carriers in the past and, stimulated by government and private assistance, capable of developing into a vital segment of our transportation system.

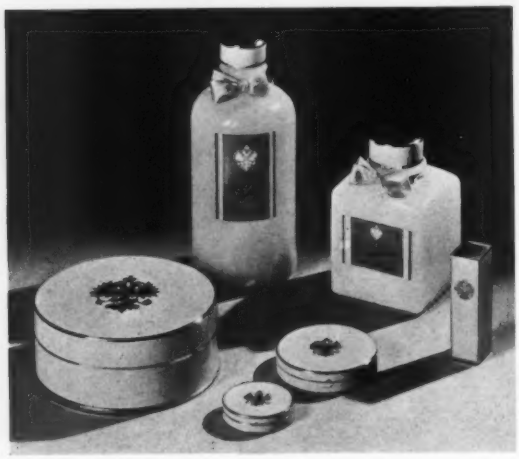
Through the regulatory and promotive functions of the Bureau of Air Commerce, stimulus is given to the development of an air transport system on the economic basis which results from foresight and careful planning. Trunk air lines, with feeders to them, serviced by federal aids to aeronautical safety, competent personnel and airworthy craft, will be combined in an industry which should set the world an example of economy, efficiency and utility.

The entire problem of the physical movement of goods, besides receiving study from experts within the government, is also the topic for consideration by a newly created Transportation Committee of the Business Advisory and Planning Council for the Department of Commerce. This group, comprised of business men with sound and experienced economic judgment and of technical experts with a background of practical application in problems of private transportation, is devoting careful study and research to the subject of a coordinated air, water and land system of commercial transportation for the United States.

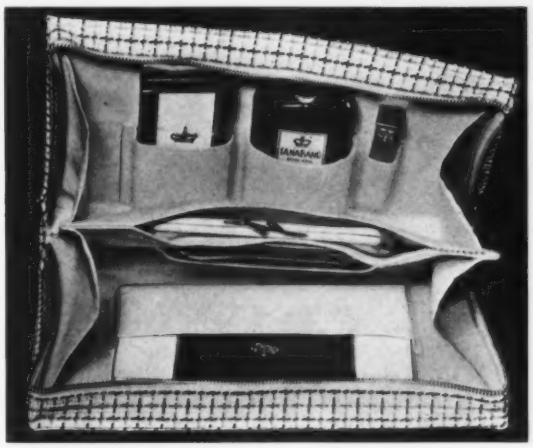
Thus, distribution, with respect both to the physical movement of commodities and the allocation of purchasing power, is submitting to belated but effective treatment. A committee of the Business Advisory and Planning Council for the Department of Commerce stated in a recent report that an important share of the blame for the current depression may be imputed to neglect of the marketing structure. This sin of omission is being corrected and, from the intensive effort now being exerted toward the understanding and improvement of our distribution system, I look forward to a program which by its fairness, efficiency and permanence will be the most effective insurance yet devised in any existing economic order against a recurring depression of dangerous intensity.

New Products and Packages

FEATURED this month among the recent products and packages are several interesting items. On this page there appears the new "Anna Pavlova" line of Vantine. Bottles are white with beige labels and black signature lettering. The metal goods and powder box are gray with gold trimming and trade mark. Closures are gold and enamel. An additional touch of daintiness is given the bottles by the bow of gold ribbon. Bost's new tooth powder appears in a green tin with orange lettering tieing in with the familiar tube shown with it in the picture. The closure is most ingenious. The Mary Dunhill lipstick is an unusual item which comes in several colors. The lipstick is of the swivel type and the half face on the closure is an interesting development. Prince Alexis N. Gargarin has completed development work on his perfume bottle. It is of fleur-de-lis design in blue glass topped with a crest in gold. His coat of arms appears as a trade mark. The box is of blue velours finish with gold lining.



On the second page appear the new "Kurlash" tweezers an interesting addition to the company's mechanical equipment line. They were divised to afford complete visibility when in use. Leigh Cosmetics has repackaged the entire line. A shade of buff and gold is featured on the powder box with labels for the jars and bottles in the same color scheme. The jar and bottle closures are in dull gold finish and an unusual feature is the band label over the top of the jars bearing the Leigh name. The only item at variance with the other packages of the line is the smelling salts. Here bottle and closure are the same as in the other items but the label carries



merely the Leigh crest. Prince Matchabelli has developed an interesting and useful "Marine Bag" for beach use which is meeting with some success during the resort season and is likely to be extremely popular during the summer at Northern beaches. Colgate-Palmolive-Peet Co. is launching new brushless shave creams under the Colgate and Palmolive labels. They appear in tubes of generous size and modern design. Glazo is introducing the "Economy Size" polish remover. This new and larger size of a familiar item contains three times the amount of the regular sized package and sells at only twice the price. It is very attractively packaged with closures of plastic. The carton and label on the bottle follow the familiar design and color scheme of other "Glazo" packages.

Editorials

The American Perfumer
AND ESSENTIAL OIL REVIEW
Trade Mark Registered U. S. Patent Office

The Independent International Journal devoted to Perfumery, Toilet Preparations, Soaps, Flavoring Extracts, etc. No producer, dealer or manufacturers has any financial interest in it, nor any voice in its control or policies.

Vol. XXIX, No. 12 February, 1935

The Three Drug Bills

THREE bills rewriting or amending the Federal Food & Drugs Act have been introduced in the present session of Congress. Senator Copeland has sponsored a revised Copeland Bill, much the same in its essentials as the measure which he introduced last year. Senator McCarran has introduced a bill following quite closely the lines of the Copeland measure but embodying the ideas of Charles Wesley Dunn, and presumably the associations in the drug field which he represents. Representative Mead has also introduced a bill which varies considerably from the two Senate bills. His measure would merely amend the present act in certain particulars and not attempt to rewrite the law entirely.

In many respects the Mead bill is probably the best of the lot. Senator Copeland's measure is generally felt to give too much discretionary authority to the Secretary of Agriculture, who may virtually legislate by regulation under its provisions and bind the trade with more or less arbitrary rulings, which may or may not be within the vision of Congress, when and if it passes the bill. Mr. Dunn's bill bearing the name of Senator McCarran suffers from the same defect. Both measures attempt to "take the curse off" these provisions by providing for a board of review. Long experience with boards of all sorts scarcely lends confidence to this device as a protective measure. It is one of those things, excellent in theory, which simply will not work.

Insofar as regulation of cosmetics is concerned, all three bills suffer from one very grave defect. Their regulatory provisions carry no terrors for the manufacturer of toilet preparations. None of the cosmetic clauses is objectionable. In fact, most manufacturers welcome them. It is the definatory provisions which must be attacked by this industry.

In all three bills *the definition of "drug" contains a provision, calculated to bring many cosmetics within its bounds.* This is the provision that substances, preparations and devices "intended to affect the structure or any function of the body" are to be classed as drugs. Under this definition, it is obvious that depilatories would be "drugs". Certainly they affect the structure of the hair which is a part of the body. Just as surely would astringents come under the "drug" definition. Their main purpose is to affect the function of the pores. The same is true of most of the popular deodorant preparations. They affect the function of pores, and glands as well in some instances. But they are NOT DRUGS and would not be so considered under a reasonable definition of the term. Cosmetics must not be regulated under the drug provisions when the cosmetic provisions are both adequate and satisfactory. This definition MUST BE AMENDED or the industry is in for MUCH TROUBLE under whichever of the bills may be passed.

Amend this definition and none of the bills is other than beneficial to the toilet preparations industry. We are discussing that and not the drug and food provisions with which we are not at the moment concerned. Probably with an amended definition of "drug", the Mead bill is the best.

But one further adverse criticism of this bill would seem to be in order. That is the provision which directly divides responsibility and authority for the enforcement of the measure. Everything is given to the Department of Agriculture excepting control of advertising. That, under the bill, is handed over to the Federal Trade Commission. We have had occasion to comment in the past upon some of the Trade Commission's findings of fact relating to perfumes and cosmetics, and we should certainly hesitate to broaden its authority over cosmetic advertising, in view of its decisions in some cosmetic cases. Aside from this, the division of enforcement powers seems hardly conducive to adequate enforcement and also capable of causing immeasurable delay and confusion.

The law is not so big that its enforcement needs distributing. *Remember what happened when Treasury and Justice both had a hand in the alcohol matter.*

OUR ADVERTISERS

NORDA ESSENTIAL OIL & CHEMICAL CO., INC.
New York, N. Y.

AMERICAN PERFUMER AND ESSENTIAL OIL REVIEW

432 Fourth Ave., New York City.

GENTLEMEN: At the start of this New Year to which we are all looking forward with great hope, I feel the time is most opportune to thank you and your staff for the earnest efforts you have exerted in our behalf.

In analyzing the effectiveness of the different advertising means, we have found that the results obtained through our advertising in THE AMERICAN PERFUMER have been extremely gratifying. In checking our copy, we discover that in those cases where we offered products that were not meeting with the hoped-for success, sales were stepped up considerably after insertion of the advertisement.

I feel that THE AMERICAN PERFUMER has more than justified our faith in it, as a sales promotion medium.

With all good wishes,

Sincerely,

H. J. KOHL.

Certainly one bureau should be enough for foods, drugs and cosmetics and it is our opinion that the Department of Agriculture is both by training and experience the division which should handle the entire matter. *Just where is the logic of labels and formulae in one bureau and advertising in another?*

In any event, the cosmetic industry as a whole welcomes the three bills. In hearings and debate it is probable that one workable measure which all can support will be evolved. We have no objection to proper and constructive regulation and there is every reason to believe that the conscientious and able legislators who are in charge of these bills will give every consideration to reasonable trade amendments before the new Food and Drugs Act is finally made a law.

A Unified Industry

EVERYONE interested in the welfare and progress of the toilet preparations industry will welcome the news of the formation of the Committee of the Toilet Goods Industry, and will hope that its efforts to bring unified action on some of the industry's many problems may be successful. Such a step has been needed for a long time. It has been especially necessary during the last two years when economic conditions, legislative proposals, differences on trade practices and the generally "jumpy" feeling of business men have several times brought different divisions of the industry almost to the point of open warfare.

Organization in the toilet preparations industry, despite the fact that it is an industry of only modest size and scope, has not been conspicuously successful. For many years the A. M. T. A. was the only organization in the field. It did excellent work along many lines and accomplished much for the benefit of the membership, and indeed for the entire industry, but at all times, many felt that it was not a truly representative organization. Large groups of small manufacturers were never associated with it. Makers of private brand goods, with a few notable exceptions, never took part in its proceedings. For years the important importers' group operated as a separate entity.

On the great majority of problems, notably those of legislation and taxation, it is possible for all groups in the industry to co-operate.

It is the intention of the Committee of the Toilet Goods Industry to occupy itself wholly with matters affecting the entire industry. It will take no part in matters on which there may be a conflict of interest among the several natural groups into which the industry is divided. Each of these groups may continue to operate its own association or co-operative group, but it is significant that all of them are represented on the Committee and that all are willing to co-operate for the common good when the industry as a whole is in difficulties or under fire.

The Committee has set itself a tremendous task for 1935. It will work first to secure a satisfactory recognition of the industry's position on the revision of the Pure Food & Drugs Act. It will also attack the unfair and burdensome excise taxes on toilet preparations in the hope that these may be repealed or modified so as to place the toilet preparations industry on a parity with other lines of business which do not have to assume this additional burden. Everyone in the industry will wish success for both these efforts and everyone should give the utmost possible support to the Committee in this work.

The future of the committee will depend to a great extent upon the work which it does during 1935. It need not be wholly successful in the difficult task which it will undertake to completely justify its position as a permanent organization. The personnel would seem to argue that the work will be undertaken with thoroughness, intelligence and reasonable prospects for success. If it brings about only a united front on these important matters it will deserve to take its place with other organizations as an important permanent agent for good in the toilet preparations industry.

Orris Root

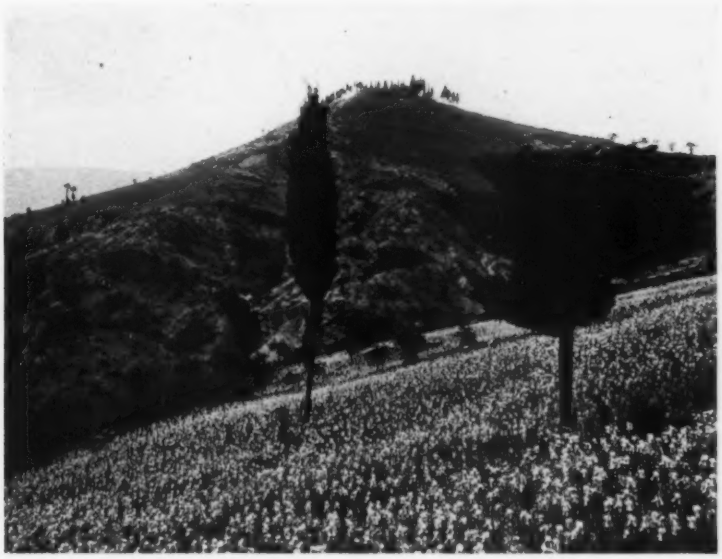
by DR. ERNEST S. GUENTHER*

EMERGING from a patch of southern pines we came upon an ivy-covered wayside shrine shaded by serene cypress trees and our Italian friend paid his respects in old Roman fashion, with outstretched arm. It was a pagan salute more befitting a statue of Juno or Venus and had it not been for the tiny terra cotta Madonna symbolizing our Christian era, we should have divined ourselves in old Etruria, two thousand years ago. Between fields of bluish orris swaying gently in the balmy breeze we ascended the crest until at last from the luminous height we beheld all the near and distant mountain ranges of Tuscany, hazy in the dazzling sunlight, looming against the blue horizon. In the valleys a village gleamed here and there and gnarled pines and slender cypresses intermingled with olive groves and vineyards. The surrounding mountain slopes appeared checkerboarded in light and dark color, the light shades indicating numerous orris plantations for which this region of the upper Arno valley has become world-wide renowned. The village beneath was San Polo, oldest center of Florentine orris root production. Beyond stretched the famous Chianti mountains, slopes and valleys densely planted with rich vineyards famous for those delicious wines. Still farther beyond, the mountains were covered with oak forests in which the moss is collected from dusty oak bark. Far out on the horizon the barren hills were dotted with clusters of myrtle and wild juniper bushes which in this natural habitat bear most fragrant berries. Light calcareous soil, high altitude, warm sunrays and rarefied atmosphere, all combine to make this part of Tuscany produce the finest orris root, Chianti grapes, oak moss and juniper berries.

* Chief Research Chemist, Fritzsche Brothers, Inc., New York.

We descended towards San Polo. A two-wheeled ox-cart slowly swayed along the road. From all appearances this cart belonged in the classic exhibition halls of one of our great museums, so much in pattern of vivid colors and antique harness did it recall the long past days of Etruria. In the field nearby two oxen goaded by a dark-skinned boy were drawing a primitive wooden plow such as the Etruscans had used more than two thousand years ago.

Further down we came upon a peasant girl hoeing in an orris field. Barefooted but gracefully she walked towards us across the sharp-stoned ground and stopped in respectful distance, bowing her head in greeting. She was poorly dressed but showed unusually fine features. There seemed something exotic about her expression and one could not help thinking of the many beautiful captives the old Romans for centuries imported from newly conquered provinces in Mauretania, Libya, Cartago, Egypt and Asia Minor to enslave them on their estates in Latium and Etruria. Surely vestiges of that blood admixture must remain in modern Italy, especially in those corners where there has been little contact with the outside world. It was a scene of rural Italy at its best and the smiling girl displayed the soul of Italy's peasantry with its natural grace, sense of respect and joy of living. "She may appear poor and uneducated now but send her to a good boarding school in Florence and after a few years she will emerge a young lady of that classical Florentine type, the beauty of which is immortalized in our great Renaissance paintings. Remember, her ancestry reaches back into two thousand years of Roman culture which still slumbers in her and only needs to be awakened," said our friend, the orris exporter. "How could one otherwise explain modern Italy's



rapid rise, her recovered strength and unity?"

We finally arrived in San Polo and entered the yard of one of the picturesque peasant houses. On large tables quantities of orris root were spread out to dry in the sun. Under a shed sat a group of happy looking peasant girls and boys, all peeling with sharp curved knives freshly harvested orris root. Our arrival naturally caused much giggling and chattering and the taking of photos turned into a great event for the whole neighborhood. The scene was quite primitive and demonstrative and did not require much explanation. Orris root production before our eyes resolved into a simple home industry, granting an important revenue to the peasants of that part of Tuscany.

The Production of Orris Root

Florentine orris (*iris Florentine L.*) was originally a plant with white flowers which formerly grew wild and quite abundantly around the city walls of Florence. But "Florentine orris" or "iris de Florence" as commercially designated is actually *iris Pallida Lam.*, a plant with light-blue flowers cultivated on a large scale in the environment of Florence particularly in the region of the Chianti mountains and in the upper Arno valley. The plant was first introduced by Adriano Piazzesi of San Polo in 1842 after he had experimented for many years trying to find orris root of best quality. Since then San Polo has remained the center of orris root production. Other important centers are Greve and Figline in the upper Arno valley. Only *iris Pallida Lam.* is grown in these regions and not *iris Florentina L.* nor *iris Germanica* ("Verona orris") which yields inferior root as we shall see later.

The production of orris root has of late years fallen off considerably. It reached its height in the years 1902 to 1905 when about 1600 tons of true "Florentine orris root" (*iris Pallida Lam.*) were grown and exported, whereas nowadays production amounts to not more than 300 to 350 tons.

The cultivating of orris in the upper Arno valley is done monstly by small farmers, usually tenant farmers. There are no extensive fields of orris but numerous small patches amounting to a few acres at a time. Arrangements are made between the landowner and his tenant farmers whereby the latter must plant and cultivate the whole field. When the harvest takes place the field is divided into two equal parts. The owner harvests half of the crop, paying his own harvesting expenses such as labor, while the tenant farmer harvests the other half which he may sell for his own benefit.

Orris grows quite abundantly and easily in all sorts of soil but in order to produce the finest quality of root which gives the best results upon distillation, a light and calcareous soil with ample exposure to the sun is required. Furthermore, the plantation should not be in the valley nor too high up in the mountains, the best altitude being between 300 and 500 meters. Regular railfall in springtime, especially during the middle of June, is very conducive to the development of good root because it helps to develop the new fibrous part of the root when the old fibrous rootlets disappear.

In order to plant orris it is first necessary to clear the ground thoroughly of weeds, roots and wood. No manure or other fertilizer is used in the Arno valley because the soil alone should produce the delicate perfume of the orris root. After digging to a depth of about forty centimeters in Spring, the ground is left alone during the entire Summer so that it may absorb rain and air. The planting is done in October and November with divided young roots harvested late in September. The roots are laid out at such a distance that altogether about forty roots are planted per square meter. The planting is not done very deep and the roots are hardly covered with earth. The coming Spring the plantation is weeded out and in doing so a little earth is turned over. The root can thereby absorb the nitrogen of the upper earth layer. The same procedure is following is the second and third Spring. In the Summer following the third Spring the root is ready for harvesting which begins usually at the end of July and lasts until the middle of September. The whole plants including the roots are pulled out by means of a simple garden hoe and are cut so as to obtain root which is to be sold and root which

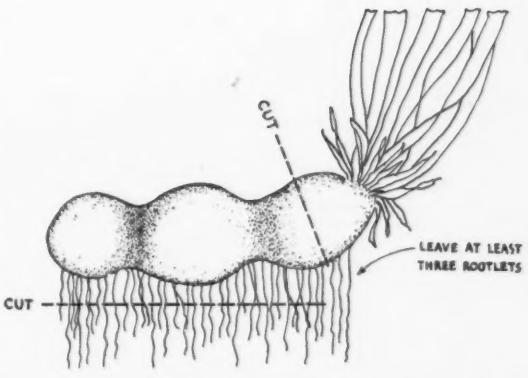
will serve for replanting. The rhizome of orris plants when three years old consists of three knobs to which adhere small fibrous root. Dividing is done in a simple manner as indicated in the drawing to the right.

The cut is made through the first knob attached to the stalk and leaf material, care being taken that at least three small fibrous roots are left attached to this knob. This part of the plant serves for replanting which is usually done in October and November. The lower part of the rhizome consisting now of two and one-half knobs is entirely cleared of any fibrous root and is subsequently transported to farmyards where it is washed of any adhering earth.

In order to prepare white root such as is usually sold, the root is peeled by a crew of laborers, mostly women and children, with sharp curved knives. This is very difficult and requires skill because the root is hard, tough and yet elastic. The peeled root is subsequently washed again, this time in running water and then spread out on large trays and left drying in the sun for six to seven days. When dry the root is transported to storehouses and stored.

This storing, too, demands certain precautions which may not be overlooked if root of first quality is to be obtained. Storing in high piles exerts a certain pressure upon the root and this seems to be conducive to good development of myristic acid and especially to the odoriferous principles of the root which are not present when the root is first unearthed. In fact the freshly harvested root is practically odorless and has at the best a "green" earthen flavor reminding, roughly speaking, of raw potatoes. The perfume of orris root develops only upon ageing; after a few months it becomes quite noticeable but the full fragrance of Parma violet for which true "Florentine orris" (*iris Pallida Lam.*) is so much esteemed develops only after three years of storing. At that time the root, when broken in the sunlight, shows minute crystals of myristic acid and the delicate, yet strong odor of irone becomes very clear. Therefore, "Florentine orris root" which is destined for distillation purposes or for extracting the perfume by some other method should always be at least three years old because newer root gives a correspondingly lower yield of essential oil. Thus the purchasing of orris root is an important matter demanding experience, caution and confidence.

In years of low prices for orris root the farmers sometimes prefer not to harvest the root and leave it in the fields so that when the growers finally do harvest, the root has been in the ground for four to five years and not for three years as is normal. Such root becomes extremely tough and makes peeling even more difficult. In order to overcome this, the peasants first wash the four to five-year old unearthed root and then simply cut it into three longitudinal slices which are washed again and then dried in the sun for six to seven days, just like the white, fully-peeled root. These slices contain on the outer edges dark root and for this reason this quality of root is sold as "unpeeled dark root." It also serves for distillation purposes, although less frequently, and more often it is used for extraction with volatile solvents. It is important that the *"dark, unpeeled root"* also be stored for three years before it develops its maximum of perfume.



The upper part of the divided first knob of the unearthed orris rhizome serves, as we have described above, for replanting. This replanting is usually done in October and November but cannot be undertaken, as a rule, in the same field, unless this ground has

previously served only once for orris. In other words, if it is virgin soil such as clearings of forests, orris can be planted twice in succession, *i.e.*, three years for the first plantation and three years for the second. Afterward an alternating crop like clover must be worked in which should last at least three years. After three years of clover another three-year orris plantation may follow and then three years of alternating clover, etc.

The yield of whole, fresh orris root is about six to eight tons per hectare. One hundred kilos of fresh root give about twenty-five kilos of peeled and dried root.

The cultivation of *iris Pallida Lam.* has so far been confined to the surroundings of Florence, particularly the upper Arno valley and the Chianti mountains. Many costly experiments have been carried out in other countries, for instance in Southern France, Morocco, Sardenia, Algeria, Tunis, Bulgaria, Mexico and India. Even where true "Florentine orris" (*iris Pallida Lam.*) was planted the results were not satisfactory in regard to delicacy, strength and yield of oil nor characteristic of the odor which the same orris plants of the Florentine region give. Many of these experiments have been given up as failures. Of course there are still large quantities of orris root being produced, especially in North Africa and India, but in these cases it is usually the Verona type of root (*iris Germanica L.*) which is sold largely for the making of orris powder and orris tinctures. "Verona orris" serves very widely in the manufacture of face powders and for imparting a certain flavor to wines and liqueurs. Upon distillation, however, "Verona orris," *i.e., iris Germanica L.* gives a very inferior product.

There is some disagreement among distillers as to what type of *iris Pallida Lam.*—"peeled, white," or "unpeeled, dark"—should be used for distillation or extraction with volatile solvents. Most distillers seem to prefer the white, peeled root but the opinion is also ventured that the presence of peel increases the yield of essential oil upon distilling, because this root is supposed to contain certain enzymes which facilitate fermentation and thereby split up glucosides and liberate essential oil. Our own experience shows us that the yield in both cases remains about the same but that the "white, peeled" root, when distilled, gives a superior product. Naturally the fact must not be overlooked that the "dark, unpeeled" root is about thirty lire per hundred kilos cheaper and therefore more economical in use. This price question seems to suggest that the dark root should be employed for the making of the lower priced resinoids of orris which are made by extracting orris root with volatile solvents, as will be described later.

As we have seen, the characteristic perfume of Parma violet develops in Florentine orris roots only after three years of ageing. The odoriferous principles therefore are not present in the fresh root and are probably the result of the splitting up of glucosides although definite proof of this theory has not yet been established. The two glucosides isolated so far, *i.e.*, iridine[1] and irisine[2] when hydrolized do not show any characteristic orris perfume and therefore a real explanation for the development of orris perfume has not yet been given. However, the fact remains that freshly harvested orris root when dipped for a few minutes into water of 90° c. retains its green earthy odor and will never develop any violet odor, very likely because certain enzymes have been killed by the cold water.

Before orris root can be distilled or extracted with volatile solvents it must be granulated which on account of the toughness and elasticity of the three-year-old root presents a problem and demands special grinding apparatus.

(*To Be Continued*)

[1] de Laire and Tiemann. *Ber. der deutsch. Chem. Ges.* 26. (1893) 2010.
[2] Euler & Erdtmann. *Zeitschr. physiol. Chem.* 145 (1893), 2010.

Taxes Engage Washington Attention

(*Continued from Page* 606)

interest charges on the borrowings already made to meet the emergency of the depression and on the billions of prospective borrowings.

There is no indication how large these borrowings may become, but some significance was seen this month in the enactment of a law raising the authorized borrowing capacity of the Federal Government to $45,000,000,000.

This summary of Government spending would seem to show rather conclusively that hopes for tax reductions in the near future are vain. Even though the "nuisance" taxes yield comparatively small returns, are difficult to collect from an administrative standpoint and are irksome to those they affect, there still remains a net gain in revenue.

The search for additional revenue within the limits of existing rates was well demonstrated last month in the article in THE AMERICAN PERFUMER describing the campaign being made by the Bureau of Internal Revenue to increase receipts from manufacturers of cosmetics by realigning in a retroactive manner the regulations governing collections of excise taxes from trademark owners who actually operate only as distributors buying products from independent manufacturers.

At no time within the writer's recollection have Administration leaders promised tax reductions at this session.

The first definite word concerning a general program was uttered at Warm Springs, Ga., last December when Senator Joseph T. Robinson, majority leader of the Senate, following a conference with President Roosevelt in which Senator Pat Harrison, chairman of the Senate Finance Committee, also participated, expressed the hope that this session of Congress would not see increases in tax rates or the creation of new taxes.

The same hope was expressed later by other leaders and by spokesmen for the President, but it should be recalled that at no time has there been even an inferential promise to this effect. The expression of hope that this would be the case has been the strongest commitment made.

Tax reductions enter only into the picture of the indefinite future when an improved business situation will have raised receipts under current revenues to a point where there is an actual surplus of receipts over the requirements of the budget including carrying charges and amortization of the national debt.

Report on Cosmetic Colors

THE Odorgraphia Committee of the Associated Manufacturers of Toilet Articles has completed that portion of its work which has to do with colors suitable for use in toilet preparations. This work was undertaken at the request of the association, whose members had found it extremely difficult to secure adequate and authoritative information on the types and classes of colors which could be used in the production of various classes of toilet preparations. The report of the committee follows:

"Your committee on Odorgraphia has for the last eighteen months been engaged in the completion of a survey of the dyestuffs and colors, used or suitable for use in toilet preparations. The technical portions of its work have been done under the direction of Joseph L. Stummer, New York, consultant on cosmetics and toilet preparations. Mr. Stummer's long experience and special study in the field made his services invaluable to your committee which gratefully acknowledges his kind co-operation and faithful work.

In undertaking the survey, your committee found that information of an authoritative and unbiased character regarding these particular colors and dyes was extremely scanty. Brief sections of some of the numerous works on the manufacture of toilet preparations contained references to the color problem, but they were wholly insufficient to be of any great value to the manufacturer or chemist faced with the problem of compounding the preparations. The first work of the committee was to prepare a list of the principal types of preparations met with in this field. No effort was made to list each individual preparation, but the list was restricted to general types of products into which all of the numerous preparations manufactured in the industry naturally fall.

When this list had been completed, the co-operation of the manufacturers of dyestuffs and colors was sought. It was found that they were deeply interested in the work and they gave splendid co-operation and support to your committee in its search for adequate and authoritative information.

To the list, previously prepared, there was now appended a list of the types of colors suitable for use in each of the various classes of preparations. Following each such type of color, there were listed by key number the names of the actual manufacturers of this class of color. The names of jobbers and blenders of colors were omitted from this list as were all trade names referring to specific shade and blends of dyes. The committee gladly gives full credit to the jobbers and blenders for their service in the field and admits that they perform a very useful function. For purposes of clarity and accuracy, however, it was decided to restrict the list of sources of supply to actual manufacturers only.

The complete report of the committee is contained in the accompanying tables. The first (See Next Page) shows the products subdivided into three great classes, Solids, Semi-Solids and Liquids; together with the types of colors suitable for each class and the manufacturers' key numbers. The second section (See Third Following Page) consists of an alphabetical list of the manufacturers of colors with key numbers referring to the table in the first section. The third portion (See Third Following Page) is a list of manufacturers of colors, grouped according to the type and class of colors which each manufactures. The three sections taken together, form a complete survey of the field of cosmetic colors.

Your committee hopes that its report will be of material assistance to the members of the Association and of the industry, and again gratefully acknowledges the co-operation and support of the Executive Board, and of the manufacturers of colors and dyestuffs, without whose aid, it would have been difficult to complete this survey."

The Value of Silver in the Modern Perfumery

CHEMICAL engineers and technologists have long recognized the industrial value of pure silver for chemical plant, but it is only during recent years that it has been economically possible to utilize this metal for industrial purposes. The chief factor responsible for the entry of silver on the list of possible metals for plant construction is the still relatively low price of this metal.

The several properties which make silver particularly suitable for numerous industrial purposes are its freedom from oxidation; resistance to various commercial organic and mineral acids (excluding nitric acid) and other chemicals; high thermal and electrical conductivities and excellent mechanical characteristics. Fortunately one of the old difficulties of successfully welding silver has now been overcome and this metal may at the present time be perfectly joined either by autogenous welding or soldering with a silver solder.

A long and conclusive series of tests carried out in one of the most important English perfumeries has indicated that silver is the most suitable metal to use for all containers. The scheme which is recommended is that to reduce the cost of plant, glass vessels or glass lined vessels should be used and that all the exposed metal parts likely to come in contact with essential oils should be made of pure silver or at least silver plated. Silver is preferable to "Monel" metal and nickel for use in the perfumery. The cost of silver taps and other accessory fittings is by no means prohibitive and the life of these is very long, owing to the fact that silver does not corrode under ordinary conditions. Then again, the salvage value for old silver is high and likely to increase if it is restored to its old position as a definite currency standard.

The silver necessary for taps, etc., in the modern perfumery must be pure metal. The presence of even small amounts of copper and base metals impairs the most desirable chemical properties of silver, namely freedom from oxidation and corrosion. A chemically pure silver with a tensile strength of 7 tons per square inch and an elongation of about 60 per cent is desirable for use in the perfumery or fine chemical manufactory.

Chart of Colors Suitable for Use in Toilet Preparations

	TYPE OF PREPARATION		COLOR	MANUFACTURERS*
Class I SOLIDS	Bath Preparations	Powders	Aniline (a)	1 3 5 7 8 9 12 13
		Salts	Aniline (a)	1 3 5 7 8 9 12 13
	Compacts	Dry Process	Lake	1 2 3 4 5 6 7 9 10 11 13 14 18
			Earth	1 3 5 7 9 11
		Wet Process	Earth	1 3 5 7 9 11
			Lake	1 2 3 4 5 6 7 9 10 11 13 14 18
			Aniline (a)	1 3 5 7 8 9 12 13
	Deodorants	Powders	Aniline	1 3 5 7 8 9 12 13
			Earth	1 3 5 7 9 11
	Mascaras	Solid	Earth	1 3 5 7 9 11
			Carbon Black	1 3 5 8 9 11
			Ultramarines	1 3 5 7 15
			Vegetable	3 5 7
			Aniline (b)	3 5 7 9 12 16 17
	Nail Polish	Powders	Aniline	1 3 5 7 8 9 12 13
		Blocks	Eosines	1 3 5 7 8 9 12
	Powders	Dusting	Aniline	1 3 5 7 8 9 12 13
		Face	Vegetable	3 5 7
		Talcum	Lake	1 2 3 4 5 6 7 9 10 11 13 14 18
			Earth	1 3 5 7 9 11
	Rouges	Dry Process	Lake	1 2 3 4 5 6 7 9 10 11 13 14 18
			Earth	1 3 5 7 9 11
		Wet Process	Lake	1 2 3 4 5 6 7 9 10 11 13 14 18
			Earth	1 3 5 7 9 11
			Aniline (a)	1 3 5 7 8 9 12 13
Class II SEMI-SOLIDS	Creams (Oil Base)	Cold Cleansing Tissue	Aniline (c)	1 3 5 7 8 9 12 13
			Vegetable	3 5 7
	Creams (Water Base)	Vanishing Foundation	Aniline (a)	1 3 5 7 8 9 12 13
			Vegetable	3 5 7
			Earth	1 3 5 7 9 11
	Creams (Containing Solids)	Bleach Deodorant Rolling Massage	Aniline (a, c, d)	1 3 5 7 8 9 12 13
	Deodorant	Cream	Aniline (c)	1 3 5 7 8 9 12 13
	Eye Shadow		Lake	1 2 3 4 5 6 7 9 10 11 13 14 18
			Earth	1 3 5 7 9 11
			Ultramarine	1 3 5 7 15
			Carbon Black	1 3 5 8 9 11

	Eye Shadow		Earth	1	3	5	7	9	11						
			Ultramarine	1	3	5	7	15							
			Carbon Black	1	3	5	8	9	11						
CLASS II SEMI-SOLIDS (*Continued*)	Lipsticks		Lake	1	2	3	4	5	6	7	9	10	11	13	14	18
			Bromo Acid	1	3	5	7	8	9	12						
			Eosine	1	3	5	7	8	9	12						
			Aniline (c)	1	3	5	7	8	9	12	13					
			Vegetable	3	5	7										
	Nail Polish	Paste	Aniline	1	3	5	7	8	9	12	13					
			Vegetable	3	5	7										
	Rouge	Cream	Lake	1	2	3	4	5	6	7	9	10	11	13	14	18
			Earth	1	3	5	7	9	11							
			Vegetable	3	5	7										
			Bromo Acid	1	3	5	7	8	9	12						
			Aniline (b)	1	3	5	7	8	9	12	13					
	Tooth Paste		Vegetable	3	5	7										
			Aniline	1	3	5	7	8	9	12	13					
Class III LIQUIDS	Bath	Oils	Aniline (a, c)	1	3	5	7	8	9	12	13					
	Deodorants	Liquid	Aniline (a)	1	3	5	7	8	9	12	13					
	Hair Preparations	Tonics, Wave Sets	Aniline (a)	1	3	5	7	8	9	12	13					
			Vegetable	3	5	7										
		Brilliantines	Aniline (c)	1	3	5	7	8	9	12	13					
			Vegetable	3	5	7										
		Shampoos	Aniline (a, d)	1	3	5	7	8	9	12	13					
		Hair Oils	Vegetable	3	5	7										
			Aniline	1	3	5	7	8	9	12	13					
	Mascara	Liquid	Carbon Blacks	1	3	5	8	9	11							
			Ultramarines	1	3	5	7	15								
			Aniline (b)	3	5	7	9	12	16	17						
	Mouth Washes		Vegetable	3	5	7										
			Aniline	1	3	5	7	8	9	12	13					
	Nail Polish	Liquid	Aniline (e)	1	3	5	7	8	9	12	13					
			Vegetable	3	5	7										
			Eosines	1	3	5	7	8	9	12						
	Perfume Extracts		Aniline (f)	1	3	5	7	8	9	12	13					
			Vegetable	3	5	7										
	Toilet Waters		Aniline (a)	1	3	5	7	8	9	12	13					

* See Alphabetical List

(a) Water Soluble
(b) Certified
(c) Oil Soluble
(d) Acid and/or alkaline proof
(e) Selected Types
(f) Alcohol Soluble

Note:—Dyes used in hair dyes are not included in this report since their purpose is not to color the preparations but to impart color to the hair. This table can readily be used for preparations not specifically listed by name since all fall within one of the classes here mentioned.

Alphabetical Directory of Manufacturers

1—Ansbacher-Siegle Corp.	.....	Rosebank, S. I.
2—Brooklyn Color Works, Inc.	129 Cherry St.	Brooklyn, N. Y.
3—Fezandie & Sperrle Inc.	205 Fulton St.	New York City
4—Fine Colors Co.	21 McBride Ave.	Paterson, N. J.
5—General Dyestuff Corp.	230 Fifth Ave.	New York City
6—Harmon Color Works	361 Harman St.	Brooklyn, N. Y.
7—Interstate Color Co.	5 Beekman St.	New York City
8—Chas. Eneu Johnson & Co.	10th & Lombard	Philadelphia, Penn.
9—H. Kohnstamm & Co.	83 Park Place	New York City
10—Max Marx Color & Chem. Co.	188 Coit St.	Irvington, N. J.
11—Geo. S. Mepham Corp.	2001 Lynch Ave.	E. St. Louis, Ill.
12—National Aniline & Chem. Co.	40 Rector St.	New York City
13—Sherwin-Williams Co. (The)	292 Madison Ave.	New York City
14—Sinclair & Valentine Co.	11 St. Clair Pl.	New York City
15—Standard Ultramarines Co.	.....	Huntington, W. Va.
16—Wm. J. Stange Co.	2549 Madison St.	Chicago, Ill.
17—Warner-Jenkinson Co.	2520 Baldwin St.	St. Louis, Mo.
18—The A. Wilhelm Co.	.....	Reading, Penn.

Directory of Manufacturers by Type of Color

ANILINE DYES

Ansbacher-Siegle Corp., Rosebank, S. I.; Fezandie & Sperrle Inc., 205 Fulton St., New York City; General Dyestuff Corp., 230 Fifth Ave., New York City; Interstate Color Co., 5 Beekman St., New York City; Chas. Eneu Johnson & Co., 10th & Lombard Sts., Philadelphia, Pa.; H. Kohnstamm & Co., 83 Park Place, New York City; National Aniline & Chem. Co., 40 Rector St., New York City; The A. Wilhelm Co., Reading, Penn.

CARBON BLACK

Ansbacher-Siegle Corp., Rosebank, S. I.; Fezandie & Sperrle Inc., 205 Fulton St., New York City; General Dyestuff Corp., 230 Fifth Ave., New York City; Chas. Eneu Johnson & Co., 10th & Lombard Sts., Philadelphia, Pa.; H. Kohnstamm & Co., 83 Park Place, New York City; Geo. S. Mepham Corp., 2001 Lynch Ave., East St. Louis, Ill.

CERTIFIED COLORS

Fezandie & Speerle Inc., 205 Fulton St., New York City; General Dyestuff Corp., 230 Fifth Ave., New York City; Interstate Color Co., 5 Beekman St., New York City; H. Kohnstamm & Co., 83 Park Place, New York City; National Aniline & Chem. Co., 40 Rector St., New York City; Wm. J. Stange Co., 2549 Madison St., Chicago, Ill.; Warner-Jenkinson Co., 2520 Baldwin St., St. Louis, Mo.

EARTH COLORS

Ansbacher-Siegle Corp., Rosebank, S. I.; Fezandie & Sperrle Inc., 205 Fulton St., New York City; General Dyestuff Corp., 230 Fifth Ave., New York City; Interstate Color Co., 5 Beekman St., New York City; Geo. S. Mepham Corp., 2001 Lynch Ave., East St. Louis, Ill.; H. Kohnstamm & Co., 83 Park Place, New York City.

EOSINES & BROMO ACIDS

Ansbacher-Siegle Corp., Rosebank, S. I.; Fezandie & Sperrle Inc., 205 Fulton St., New York City; General Dyestuff Corp., 230 Fifth Ave., New York City; Interstate Color Co., 5 Beekman St., New York City; Chas. Eneu Johnson & Co., 10th & Lombard Sts., Philadelphia, Penn.; H. Kohnstamm & Co., 83 Park Place, New York City; National Aniline & Chem. Co., 40 Rector St., New York City.

LAKE COLORS

Ansbacher-Siegle Corp., Rosebank, N. Y.; Brooklyn Color Works Inc., 129 Cherry St., Brooklyn, N. Y.; Fezandie & Sperrle Inc., 205 Fulton St., New York City; Fine Colors Co., 21 McBride Ave., Paterson, N. J.; General Dyestuff Corp., 230 Fifth Ave., New York City; Harmon Color Works, 361 Harman St., Brooklyn, N. Y.; Interstate Color Co., 5 Beekman St., New York City; H. Kohnstamm & Co., 83 Park Place, New York City; Max Marx Color & Chem. Co., 188 Coit St., Irvington, N. J.; Geo. S. Mepham Corp., 2001 Lynch Ave., East St. Louis, Ill.; The Sherwin-Williams Co.; 292 Madison Ave., New York City; Sinclair & Valentine Co., 11 St. Clair Place, New York City; The A. Wilhelm Co., Reading, Penn.

ULTRAMARINES

Ansbacher-Siegle Corp., Rosebank, S. I.; Fezandie & Sperrle Inc., 205 Fulton St., New York City; General Dyestuff Corp., 230 Fifth Ave., New York City; Interstate Color Co., 5 Beekman St., New York City; Standard Ultramarines Co., Huntington, W. Va.

VEGETABLE COLORS

Fezandie & Sperrle Inc., 205 Fulton St., New York City; General Dyestuff Corp., 230 Fifth Ave., New York City; Interstate Color Co., 5 Beekman St., New York City.

MR. SHEELEY

MR. KING

Aldehydes from Naphtha

by WILLIAM H. KING and CLYDE Q. SHEELY

Department of Chemistry, Mississippi State College
State College, Miss.

IN September, 1934, a paper was presented before the American Chemical Society at its 88th meeting at Cleveland, O., by the authors of the present paper, concerning the production of a mixture of C_8 to C_{10} aldehydes and a mixture of C_8 to C_{10} acids by the catalytic oxidation of the commercial hydrocarbon fraction known as cleaner's or solvent naphtha which is essentially the highest boiling half of straight run gasoline.

Newspapers all over the country have carried news articles concerning the discovery of this process and these two media of publication have aroused the interest of many aromatic chemical manufacturers and perfumers in this country and abroad. This has been evidenced by numerous requests to the authors for more detailed information and samples of the products.

Hence, it is only fitting that those primarily interested in this field should be advised as to the true status of the discovery with regard to the perfume and aromatic chemical industry. The detailed scientific report of the discovery, together with the data and details of the process, has appeared in *Industrial and Engineering Chemistry*, Vol. 26, p. 1150, November, 1934. No attempt will be made here to reproduce all the details concerning the process of manufacture which can be obtained readily from the foregoing reference. However, an account will be given of the properties of these products as manufactured and a view given of the possibilities of these products in the aromatic chemical field.

Properties of Products

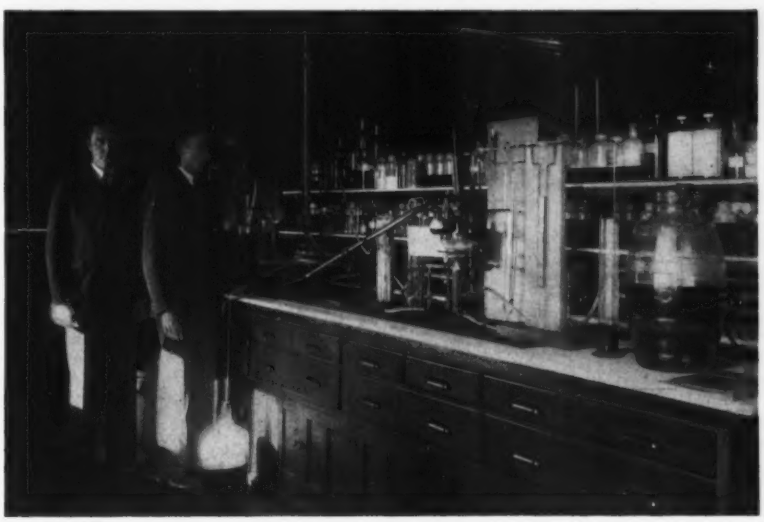
The products are formed by the catalytic atmospheric oxidation of a hydrocarbon fraction with a boiling range of 330° F. to 400° F. This fraction is a commercial product called cleaner's or solvent naphtha and chemical tests show it to be principally a saturated paraffin hydrocarbon mixture containing, mostly, C_8 to C_{12} aliphatic hydrocarbons.

The aldehydes, when fresh, have a pleasant odor but soon acquire a rancid odor characteristic of higher fatty acids when left exposed to the air to undergo oxidation. The aldehydes react with phenyl hydrazine yielding an oily hydrazone. The aldehyde mixture is insoluble in water and hydrochloric acid, emulsifies with potassium hydroxide solution, is soluble with development of a dark color in cold sulfuric acid, forms a bisulfite addition compound soluble in excess bisulfite solution, and is quite soluble in alcohol and ether.

Distillation Data

The aldehydes isolated from each run analyzed from 15 to 20 per cent acids, owing to the ease of oxidation undergone while being heated to expel the ether used in their extraction. The acidity ran less than 0.5 per cent when recovered directly from steam distillation as would be practiced in commercial quantities. One-cubic-centimeter samples of the freshly steam-distilled aldehyde mixture left in 50-cc. Erlenmeyer flasks exposed to the air at 35°C. for 0.25, 0.5, 1, 3, 6, and 12 hours showed 4.28, 5.48, 8.75, 18.40, 30.31 and 44.00 per cent acids, respectively; 1 cc. of the aldehydes dissolved in 10 ccs. of alcohol showed only about 3 per cent acids when left exposed to the air at 35°C. for 24 hrs. The specific gravity of the aldehyde mixture at

(*Continued on Page 626*)



THE AUTHORS AND THEIR APPARATUS

Tooth Pastes and Tooth Powders

Their Changing Vogue; Their Composition; Some Guides to Their Manufacture

by E. G. THOMSSEN, Ph.D.

THE vogue of preparations for the cleansing of the teeth changes quite rapidly. For a period of years a new type tooth paste or dental cream made its appearance every few months. The sales appeal was usually based upon a new idea, either fantastical or with a certain degree of scientific merit. Many of these dental creams have lost their popularity. The lack of capital most usually did not permit the continuation of advertising their demerits or merits. It has become just about as difficult to establish a new tooth paste in the favor of the consumer as it is to put over a new brand of a cigarette or a new make of an automobile. The market for tooth pastes is overcrowded and those pastes which are popularized merely cut down the consumption of the numerous brands already established and actively advertised.

While this battle of advertising and merchandising dental creams was going on, a few manufacturers of tooth powder which had waned in popularity because of the publicity given tooth pastes, continued to advertise and sell to a minority of the users of tooth cleansing preparations. They convinced quite a company of these users that the employment of tooth powder was the way the dentist cleaned teeth and they ought do likewise. The idea was gradually expanded and as the powder users made inroads among the consumers of pastes, the dental cream manufacturers in a goodly number also switched their attention to tooth powder. The result has been that within the past two or three years tooth powders are gaining in publicity in the advertising pages and on radio programs as a means of cleaning the teeth and are being used in greater amounts by the public.

Comments on Claims

If tooth pastes or tooth powders are stripped of all the embellishments attached to them by advertising copy writers or pseudo scientists, they have but one prime function. That is to clean the surface of the teeth. In cleansing the teeth there is some secondary beneficial action. The stimulation of the gums due to proper brushing with increased blood supply and of some benefit in pyorrhea is one. The whitening and polishing of the teeth by removal of surface stains is another. Just as hands cleansed by soap are whiter so properly brushed teeth are whiter. The refreshing, clean feeling in the mouth is at least pleasing to the user, just as the use of a lotion with its refreshing smell is exhilarating to a shaver. There is some antiseptic and germicidal action in the mouth in the limited cases where the powder or paste actually contacts the bacteria. The oral cavity, however, is such an irregular and inaccessible hole, with numerous folds and nooks, that general claims along these lines are not tenable. Then too, the dental arches with their great number of irregularities and the teeth with pits, grooves, crevices and fissures favor the lodgement of food and offer good conditions for the development of bacteria. The rendering of the mouth sterile can only be accomplished with the greatest of difficulty and tooth pastes even though antiseptic under laboratory conditions are not held in the mouth long enough nor do they reach far enough into the various interstices to accomplish their full purpose. They are only effective against such bacteria as they actually contact during use.

There is no disputing the fact that many advertising claims for dental preparations are still greatly exaggerated. The Food and Drug Administration of the federal government has cleaned up some of these. The American Medical and American Dental Associations have disproven many of them under actual clinical and laboratory conditions. Thus far only the assertions made on the actual package may be controlled by the government administrative authorities. They are more or less impotent when claims are made through collateral advertising as in periodicals or over the radio. To listen or to read a few of the false assertions of merit for these preparations is more or less disgusting to the well informed. To thus prey on the credulity of the public is most unethical and can only result in eventual harm to all manufacturers of tooth cleansers. Not only is this true of the direct claims made, but also of the negations inferring that competitive products contain harmful or impure ingredients like "contain no grit, pumice or soap." It is true or possibly it is too late, in view of present legislation pending at Washington, that manufacturers realize that they should not permit the advertising agencies to make unscientific, untenable and gross exaggerations as to the merits of their products. Only such statements should be made as can be verified by clinical and laboratory experience. Thus far the attitude of those engaged in these investigations, consisting mainly of chemists in government or medical society employ is, as already pointed out, that the only function a tooth power or paste performs is to cleanse the teeth.

They have possibly gone to an extreme in this regard and chemists or clinicians in the employ of tooth paste or powder manufacturers could expand this function

under proper laboratory and clinical conditions for certain preparations. The trouble has been that manufacturer's claims are mostly based upon unreliable scientific evidence. In their greed for greater sales they have lost sight of the true scientific value of their product. This is more or less tragic since advertising of tooth pastes and powders has done so much toward directing people's and especially children's attention toward giving attention to their teeth. Were it not for the millions of dollars thus spent, the dental profession would not have been as lucrative as it is today.

The ethics of the profession of dentistry hold up to scorn an individual dentist's advertising, so the manufacturers have had to blaze across the pages the fact that it is advisable to visit a dentist at least twice a year for health's sake. It would seem then that a closer cooperation between dentist and manufacturer of dental cleansers ought to be possible. It certainly would result in more constructive business than is evident at this time in getting the approval of the Council on Dental Therapeutics for the American Dental Association and then have it removed because of some dispute as has been the case with a number of preparations. It is very probable this clash has been due to the fact that the A. D. A. Council has set itself up as the sole and final arbiter regarding claims and censoring advertising. A fair minded, capable council representing both sides would be much more constructive and advisable. Not all manufacturers are willing to abide by the specifications for the acceptance seal of the A. D. A. and probably justifiably so. It takes training and money to accomplish this research work and unfortunately most manufacturers do not desire to shoulder this additional expense.

In considering our subject from the manufacturing viewpoint it is necessary to classify the products under discussion into two classes—tooth pastes and tooth powders.

Composition of Tooth Pastes

We will consider the composition and manufacture of tooth pastes first. In doing so, we wish to point out that the only difference between paste and powder often lies in the liquid ingredients necessary to make a paste.

The manufacture of a tooth paste is not a simple matter. A consistency which is satisfactory at room temperature often breaks down under the test of time. A beautiful creamy product, under usage, age and climatic conditions, especially temperature extremes, will gradually or suddenly curdle like cottage cheese, harden like cement or separate into liquid and solids. Formulae in books on cosmetics can hardly be depended upon for in general it may be stated that when a formula is perfected the composition is closely guarded. It might be said, however, that the changes in consistency are better understood now than formerly and can usually be prevented by proper experimentation. Often the difference between a paste of proper permanent consistency or unstable consistency is due to some very small change in the proportion of the ingredients or the addition of a stabilizing agent.

The composition of tooth pastes is varied. Some are soapy, some are more abrasive and still others dissolve in the mouth during use. The majority, however, consists of an abrasive, a sweetener, liquid constituents, flavoring oils, soap in many cases, medicinal ingredients occasionally and almost generally some colloidal binding agent. With this assortment it is possible to

Classification of Ingredients of Tooth Pastes

Abrasives	*Soaps*	*Liquid Constituents*	*Binders*	*Other Ingredients*
Bentonite	Castor Oil	Alcohol	Acacia	Aromatics
Calcium Phosphates	Combination Castile	Glucose	Colloidal Clays	Benzoic Acid
Calcium Sulfate	Neutral White	Glycerine	Free fatty acid (set free from soap)	Bicarbonate of Soda
Chalk (usually light)	Olive Oil Castile	Glycols	Gum Karaya	Boric Acid
China Clay (Kaolin)	Palm Oil	Honey	Gum Tragacanth	Camphor
Cuttle Fish Bone Ground		Invert Sugars	India Gum	Citric Acid
Hydrated Magnesia		Simple Syrup	Irish Moss	Dyestuffs
Magnesia (MgO)		Water	Petrolatum	Iodine
Magnesium Carbonate			Silica Gel	Malic Acid
Pumice (very fine)			Starch as Glycerite of Starch	Phenols
Silica (very fine)				Potassium Chlorate
Talc				Saccharine
Whiting				Sugars
				Salt
				Sodium Benzoate
				Thymols
				Ultramarine

obtain a vast number of combinations.

In order to more easily visualize the composition of tooth pastes a table classifying the various ingredients is helpful. This is presented above.

It is necessary to comment on these ingredients.

Abrasives, Soaps, Liquids

As far as abrasives are concerned, the ideal product is one that is softer than the enamel of the teeth and at them same time has polishing properties and is tasteless and insoluble in the other ingredients of the paste, yet will absorb some of the liquid therein. Chalk most nearly meets these requirements. It is the most generally used. A compound of calcium phosphate and gypsum is also used quite generally because it possesses greater polishing properties than chalk. In many cases the chalk is partly or entirely replaced with magnesia or carbonate of magnesium. The pastes thus made are termed milk of magnesia tooth pastes and accredited with properties desirable to the reaction left in the mouth. These properties are questionable, however. The cheaper substances listed in this category are usually employed because of their economy though it might also be said harsh abrasives like silica and pumice though they are efficient in removing tartar and polishing are dangerous because of their cutting action on the enamel.

The use of soap in dentifrices has been open to dispute. It has been opposed because it inhibits the salivary secretions, alters the reaction of the saliva and destroys the ferments of the saliva. On the other hand it is recommended because it dissolves mucin plaques, retards bacterial growth, corrects "Trench Mouth," has emulsifying and detergent effects, dissolves fatty substances without attacking the teeth and lubricates the tooth brush allowing the bristles to penetrate into the interproximal spaces more easily. From an impartial survey of the literature it must be concluded that the value of soap in tooth pastes is conceded by most authorities.

The incorporation of soap into a tooth paste formula is not a simple matter once the amount exceeds two or three per cent. Due to its colloidal nature it causes much of the difficulty in consistency changes and hence has been dropped out of many a formula. To really be effective about ten per cent should be incorporated. Some dental creams contain as high as 25% of soap and are much liked by consumers. Soap usualy is omitted from a tooth paste formula either because it is expensive to use or because of the difficulty of incorporating it.

The soap itself should be very nearly neutral (about 0.3% free alkali as Na_2CO_3), be preferably finely powdered, be tasteless as possible, be sufficiently high in titre to properly congeal the liquids in the various formulae and be made from the better grade fats and oils. Neutral white soap usually consists of edible fats and cocoanut oils, Castile soap of olive oil, Castile combinations of olive oil, peanut oil, cocoanut oil and tallow, palm oil of bleached palm oil and castor oil of castor oil. The use of castor oil soaps in dentifrices has been patented upon the contention that the sodium ricinoleate produced by saponifying castor oil depresses the surface tension of media in which bacteria causing pyorrhea thrive and renders the germs ineffective. This action is termed detoxification but is not given much credence by bacteriologists.

The liquid ingredients of tooth pastes vary somewhat though water, glycerine and alcohol are most generally used. Glycerine is probaly the one ingredient that comes nearest to being common to all tooth pastes. Certain manufacturers of tooth powders have insinuated through negative claims, that it is harmful. This position is hardly justifiable as glycerine is admirably adapted as a liquid for mixing with abrasives, flavors and soap.

Binders

Tooth pastes are colloidal in nature. The question of proper consistency enters most forcibly into their properties. It is through the proper maintenance of the gel that tooth pastes remain creamy, uniform and soft under the various climatic conditions to which they are subjected. The binders afford the colloidal protection so necessary to proper consistency. They consist of substances which, when dissolved in the liquid constituents used in the paste, will form a suitable colloidal solution of desired thickness. The amount of these binders to be used depends upon the formula into which they are incorporated but the interesting fact is the difference in uniform consistency which is occasioned by their omission. The more common binders are starch as glyceride of starch, gum tragacanth, acacia, free fatty acids usually liberated by the introduction of an organic acid (e.g., benzoic acid) into a formula employing soap, gelatine and Irish moss.

These substances are incorporated in the majority of the cases by preparing them by first dispersing them in the liquids used in the tooth paste and then mixing the colloidal solution with the solid constituents in

the paste. The amounts used vary from 0.5% to about 10%. No fast quantity can be specified without a full knowledge of the formula under consideration. A careful study of the colloidal protection afforded by the substance itself as well as the amount to be used under experimental conditions is necessary. I remember very distinctly a tooth paste formula which was submitted and which held up beautifully until the temperature reached around 100°F. It then separated into pockets of liquid and heavy solids in the tube. Various percentages of colloids were added to the formula in over a hundred different trials. It was finally found that 1% of gum tragacanth or 0.5% Irish moss added to the formula held up the consistency under the greatest extremes of temperature to which a tooth paste would ever be subjected namely —50°F. to 140°F. No further difficulty has been occasioned with the product since this adjustment has been accomplished.

Other Ingredients

The remaining ingredients, not yet discussed, consist of sweeteners, aromatics, whitiners, antiseptices or cleansers. The sweeteners are used for their sweet properties and consist mainly of saccharine. Powdered sugar, honey, glucose, invert sugar and simple syrup are used to a less degree. The aromatics used for flavoring comprise quite a number of essential oils, flower oil and synthetics. The more common products consist of oils of peppermint, spearmint, cassia, eucalyptus, cloves, geranium, pimento, anise and cardamon; otto of rose or rose flower oil; synthetics and isolates like methyl salicylate, musks, thymol, eucalyptol, menthol, ionone, geraniol and rhodinol. The amount of flavor added is usually 1 to 4%, depending upon the amount of flavor desired and its strength.

It is well to remember that dental creams freshly flavored are from 10% to 25% stronger than after they have aged. Ultramarine is added to them because it is claimed to whiten the teeth by neutralizing their yellow cast. Dyestuffs, and the certified colors should only be employed as an addition because they render the finished cream more attractive to the eye. Benzoic acid is used in soap containing pastes to free some fatty acid and in this reaction form sodium benzoate which is both an antiseptic and a preservative. Phenols, camphor, potassium chlorate, etc. are added to give antiseptic or other medicinal properties to the paste.

Bicarbonate of soda, salt and similar substances are employed in pastes wherein the cleansing materials in the paste dissolve in the mouth entirely and are largely based upon the custom of some people who brush their teeth with plain salt. In this case the tooth brush alone must do the cleansing and the salt used is presumed to toughen the gum structure. We have not covered the entire scope of these additions but many of them have not "taken" and merit further discussion. In some cases ingredients of an acid nature have been added for their stain removing properties or upon the contention that fruit acids leave the mouth alkaline. The idea of stain removing has appealed forcibly to the consumer but the "fruit juice idea" has never been successfully promoted.

(To be Continued)

DESIDERATA

By

Maison G. de Navarre, Ph.C., B.S.

Water in Oil Emulsifier

We have just experimented with a new water in oil emulsifier, which is a partially oxidized soya bean oil. The product has been used successfully in the margerine industry, and is now offered to the cosmetic and pharmaceutical trades. As little as 2% will emulsify 20% of water in oil. The emulsifier is not compatible with mineral oil or petroleum derivatives.

Hand Lotions

Each time a new hand lotion makes its appearance, it is ten to one that it will be of the mucilage in water type. Nothing new, but a copy of something already on the market. Our experience is, that women would like something just a bit different, possibly more healing, and less drying. The usual mucilage type does little to heal a chapped skin. We think an emulsion of some type, one that can dry quickly, and still have healing qualities is a good bet. One that is not sticky like the honey and almond prototypes. Here is a chance for some real inventive genius.

Sulfur Hair Lotions

The increasing popularity of sulfur hair tonics, has brought these to the fore again. Colloidal sulfur is usually used over the sulfur flowers, because of its extreme fineness. Colloidal sulfur is supposed to be readily assimilated by the scalp. It is further supposed to stimulate circulation to the hair follicles. The usual lotions contain anywhere from ½ to 5% of colloidal sulfur. Some have up to 2% of carbolic acid added. Others contain small amounts of oxyquinoline sulfate.

Cholesterol Hair Lotions

These tonics and lotions gained their popularity abroad. Now, they are being made by several manufacturers in this country. To make a permanent tonic of this nature it is important that the alcohol used be of a high proof. So called anhydrous isopropyl alcohol can be used along with the usual alcohol or alone. When used with ethyl alcohol 5% to 10% is sufficient; when used alone as the solvent it should comprise not less than 65% of the total. The finished tonic should be colored a golden yellow. From 0.2% to 0.5% cholesterin are used along with slightly smaller amounts of lecithin.

Henna and Blond Rinses

To get clearer shades replace a small amount of the soap, acid, or herb or whichever you use with a like amount of sodium lauryl sulfonate. You will be surprised with the difference in results.

Aldehydes from Naphtha

(*Continued from Page 621*)

30°C. was 0.866. An A.S.T.M. distillation of the mixture showed the following:

Initial B.P.°F.	192
10%,°F.	276
20%,°F.	298
30%,°F.	316
40%,°F.	331
50%,°F.	350
60%,°F	363
70%,°F.	380
80%,°F.	400
90%,°F.	430
Final B.P., °F.	486
Recovery, %	98
Residue, %	1.5
Loss, %	0.5

The distillation data indicate small amounts of some of the lower members as well as some C_{11} and C_{12}. Since aldehydes above C_{10} do not form addition compounds with bisulfite it is doubtful that the latter two are present. The aldehyde mixture produced by the process is pale yellow in color.

The acids are limpid liquids with a pale yellow color and are completely soluble in dilute NaOH solution. They are insoluble in water but soluble in ether. They have a rancid odor.

Cost of Production

A yield of 20% of aldehydes and 25% of acids is obtained under the best conditions. The cost of producing the aldehyde and acid mixtures is approximately $3.00 to $5.00 per pound. The present price of C_8, C_9, and C_{10} aldehydes in a compounded form is $28.00, $45.00, and $30.00 per pound, respectively. Now, with this large difference in price between the raw material produced by the newly discovered process and the price of the finished aldehyde product it is entirely logical to expect that the aldehyde mixture can be purified sufficiently to replace those products manufactured by less direct methods, and it should be possible to do this at a reduced price.*

The Aldehyde and Acid Mixtures as Starting Materials in the Synthesis of Other Aromatic Chemicals

It is probable that if these aldehydes are put on the market at a reduced price, research will be stimulated toward producing other synthetics which are out of the question at the present time because of the present high cost of the aldehyde raw material. A few possibilities will be mentioned here.

Heptaldehyde, which is produced in large quantities by the distillation of castor oil under reduced pressure, is at the present time used as a starting material for the jasmin aldehyde, α-amyl cinnamic aldehyde. The chemical formula for this compound is

$$C_6H_5.CH{:}C(C_5H_{11}).CHO.$$

Now, in the light of previous experience in the development of synthetic aromatic chemical compounds it is at least plausible to suspect the homologues such as α-hexyl cinnamic aldehyde, α-heptyl cinnamic aldehyde, and α-octyl cinnamic aldehyde, which should be capable of preparation from octyl, nonyl, and decylic aldehydes to have slightly different and possibly improved odors, and the possibility of developing a valuable line of aromatic chemicals is thus apparent.

The heptine carbonates which are prepared from heptaldehyde should form the nucleus of ideas which might result in the homologues of this compound from C_8 to C_{10} aldehydes, especially if the latter can be obtained at a lower cost.

Such compounds as the following, which are capable of production from the aldehydes by standard methods indicate possible use in perfumes by their structures:

1. $CH_3(CH_2)_6CH{:}CHCHO$
2. $CH_3(CH_2)_6CH{:}CH.CO.CH_3$, also methyl decylenone, etc.
3. $CH_3(CH_2)_6CH(OH).R.$ (Ar)
4. $CH_3(CH_2)_6CH{:}CH.CO.C_6H_5$
5. $CH_3(CH_2)_6CH(OOCR^1)R^2$ (Ar)
6. $CH_3(CH_2)_7.OH$
7. $CH_3(CH_2)_7.O.R.$ (Ar)
8. $CH_3(CH_2)_7.OOC.R.$ (Ar)
9. $CH_3(CH_2)_6.CH(OR)_2$.

The possibilities of the C_8 to C_{10} acids in the aromatic chemical field are readily apparent when one considers that such compounds as methyl heptyl ketone, methyl nonyl ketone, etc., the esters of C_8 to C_{11} acids, tertiary alcohols such as dimethyl heptyl carbinol and phenyl methyl heptyl carbinol, which are obtainable from the ketones, and the esters of these tertiary alcohols, are easily preparable by various standard methods therefrom.

There are many other possibilities suggested by this train of thought which would come quickly to a research worker in the aromatic chemical field. It is highly probable that among the products developed by research with these products would be found just the chemical individual that many a perfumer has been looking for to complete the compounding of his perfume.

Combatting Borax Incompatibility

Ar. Mihalovici (*Pharm. Zentralhalle*, 74, 196, 1933 through *C.A.* 27, 3032) discusses a method of obviating the incompatibility of borax with a cream containing $HgCl_2$ resulting in a red coloration with the formation of Hg oxychloride. The addition of small amounts of benzocain obviates the condition.

Phenacetin as Preservative

Lindholm (*C. A.*, 28, 3254, 1934) finds that 20 grams of phenacetin per 5 kilograms of hydrogen peroxide is a superior preservative to acetanilide, quinine hydrochloride, oxallic acid, urea or methyl-p-oxybenzoate.—*M. G. de Navarre.*

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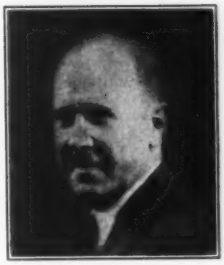
* It must be understood that costs and prices as given here are not strictly comparable. The low figure for an acid and aldehyde mixture as made by the authors should not be confused with the cost of finished and purified aldhydes as sold in the market.—EDITOR

Modernizing Toilet Preparation Manufacture

by RALPH H. AUCH, A.B., Ch.E.,

and J. O. VAN WINKLE, Ch.E.



MR. AUCH

MR. VAN WINKLE

BEFORE discussing the various types of equipment and the optimum layout of the equipment the consideration of a few fundamental principles of production will be timely. The proper application of these principles will eliminate many production difficulties.

First of all, the determination of a flexible production schedule, that is to say, a definite sequence of economically handling the various items to be manufactured and assembled, will save any concern in this industry many dollars. The savings may be affected in the investment in equipment, in the elimination of productive and non-productive labor, in wastage and spoilage of materials, and in the investment of both raw material and finished stock inventories.

The determination of and the adherence to a production schedule is quite generally the function of a planning or production department. However, if the volume of output or the complexity of operations do not justify the organization of a planning department, the above mentioned savings can be substantially affected without such a department. The various department heads can accomplish very desirable results from a consideration of all the factors involved and by logical reasoning.

Proper Sequence

To illustrate the definite sequence of economically handling the various items to be manufactured and assembled, take the case of four or five shades of face powder to be handled in the same manufacturing and filling equipment. It is quite evident that time may be saved in cleaning the equipment and the possibility of spoilage and wastage, by contamination of the lighter shades with the darker, is minimized if the lightest shade is followed by the next darker shade. In like manner, a saving is effected if the same equipment is used for all shades instead of using duplicate equipment for the lighter and darker shades. This example may appear to be quite elementary but if the same line of reasoning is applied to every operation, the results which are accomplished will be gratifying.

STEAM KETTLE AND BOILER

The most important factor in making a production schedule flexible is the spacing of the products, which are to be handled on the same equipment, and consequently, which are most apt to cause production conflicts, as far apart in the production cycle as is possible. That is to say, if the production cycle is four weeks and there are four creams such as cold cream, vanishing cream, shaving cream and dental cream to be filled into collapsible tubes on the same equipment, then the four creams should be placed one week apart in the schedule if the total time required to produce the four week supply of each cream is the same. In like manner, if the total time required to produce a four week supply of the shaving cream and the dental cream is twice the total time required to put up the cold cream and the vanishing cream, then 1/3 of the total working hours in the four week cycle should be alloted to the shaving cream, 1/3 to the dental cream, 1/6 to the cold cream and 1/6 to the vanishing cream.

The relation of the total times required to produce the four week supply of each of these creams may be determined by an analysis of past production and sales records. If this relation is based on the maximum quantities of each cream which will be required in a four week period, then the possibility of having to run a job of cold cream before a job of vanishing cream is completed will be minimized. To state the above example in other words, the idle machine time for the collapsible tube filling equipment should be equally spaced between the jobs of each cream in the production schedule.

Production Cycles

The next thought which may logically occur to the reader is the means of determining the optimum length of the production cycle. No mathematical formula for the determination of the optimum length can be stated in elementary terms but the following observations may be readily stated. The optimum length of a production schedule will depend upon the proper balance between the following factors: The quantities of the items to be produced; the production capacities of the machines; the susceptibility of the items to spoilage in

storage; the cost of and the available storage space for raw materials and finished stock inventories; the availability of raw materials; and the fluctuations in demand for the items.

To relate the factors which determine the optimum length of a production cycle is far less difficult than the determination of the proper balance between these factors. However, the following generalities will elucidate in some measure the method of determining the proper balance. Any job, no matter what is is, is made up of three parts, namely: (1) "make ready," that is, set-up or prepare the equipment and arrange the stock; (2) "do"—the actual performance of the operations; and (3) "clean up"—clean the equipment and put away the tools or work or both. Therefore the length of the production cycle should be as large as possible—all other factors being considered—in order to make the "make ready" and "clean up" parts of the job as small a percentage of the total time required for each job as possible.

In order to simplify as much as possible the determination of the proper balance between the factors which control the length of a production cycle, first assume ideal conditions. The most ideal conditions would be the receiving of raw materials at a constant rate in the quantities in which they are needed; the shipment of the finished stock at a constant rate which is equivalent to the rate of receiving raw materials; and a complete unit of machines for each item with capacities equal to the rate of shipment of each item. Then the "make ready" and "clean up" factors would be eliminated. The cost of and available storage space for raw material and finished stock would be at a minimum; the susceptibility of the items to spoilage in storage would be eliminated; and the production cycle would be continuous. With these conditions obtaining the investment in equipment would be the highest.

If multiple purpose machines were used with capacities which replenish the finished stock at a rate greater than the constant rate of depletion, then the "make ready" and "clean up" factors increase; the cost of and storage space for finished stock inventory increase; the susceptibility of the items to spoilage in storage may increase; the investment in equipment would decrease; and the length of the production cycle would decrease.

A production cycle of four weeks—13 cycles per calendar year—is readily applicable in the cosmetic industry. That is, at some predetermined and regular time during each four week period a job of each item is run. However, items which are not susceptible to spoilage and on which the "make ready" and "clean up" time would be excessive if jobs were run each four week period, could be handled every second, third, or fourth cycle. Such items are powder and rouge compacts, and manicure preparations.

Manufacturing Equipment

The subjects of raw material and finished stock control methods, of production control charts, of machine loading charts, and of production control boards have been purposely omitted from this discussion. An endeavor has been made to bring out that fact that any methodical planning regardless of how or by whom it is done, is much better than no planning at all. Some fundamental concepts have been simply enumerated.

Before choosing the complement of tanks, mixers, hoppers, filling machines, etc., it is vital to ascertain the effect of the product on the equipment parts coming in contact with it. Accurately weighed pieces of the metal it is proposed to use should be immersed in separate portions of the product in beakers or water glasses.

Re-weighing after a period of days or after as long as the available time will permit, will indicate through loss or gain in weight whether or not it has been attacked. Inspection of the liquid for cloudiness or discoloration, an emulsion for stability and discoloration or a paste or cream for discoloration and effect in consistency will also help in the determination of its fitness.

With glass lining, monel metal, stainless steel, hard rubber, aluminum, plastic materials, earthenware, block tin, copper and even block silver so effectively, beautifully and economically fabricated it is necessary only to specify the proper material to the manufacturer.

Making Steam Available

The large manufacturer has live steam available under boiler pressure for his manufacturing operations, but frequently the small manufacturer is at a loss how to avoid a costly installation. Direct heating with gas is of course the easiest but the fire hazard and the possibility of injury to the product from overheating renders this procedure impractical.

A self contained kettle and steam generating plant is available. One type has a special independent coil heater gas operated. This heater is entirely separate and the kettle cannot be damaged by the system running dry. The copper coil heater is of sufficient capacity to get up a steam pressure of 60 pounds on the jacket in 15 minutes. It may be safely operated at pressures up to 80 pounds, which is equivalent to a temperature higher than is required in all ordinary applications.

A second type which is more nearly automatic is the gas fired boiler which is built low in height so that the water line in the boiler is below the steam chamber of the kettle. The condensation from the steam chamber of the kettle thus flows back to the boiler without the use of steam traps. The flow of gas is through an automatic valve so that as soon as the desired steam pressure is obtained the gas flow to the burners is throttled. Where city water pressure is greater than the boiler operating pressure only a feed water regulator is required. If the boiler pressure is greater than available water pressure an automatic feed water pump may be employed.

If volume hardly warrants the installation of a boiler these writers have employed the following makeshift. Provide a cock on the steam inlet of the kettle and screw in a nipple which has had a funnel soldered into it. The nipple should be long enough to bring the level of the funnel above that of the jacket. This facilitates filling the jacket with water. An opening near the top of the jacket fitted with a safety valve makes it ready for heating. Again gas is utilized for heating and when mounting standard burners in sufficient number is not practical an ordinary pipe bent

(*Continued on Page 656*)

The Apple Flavor

A Study of Its Characteristics and Production

by H. STANLEY REDGROVE, B.Sc., F.I.C., F.R.H.S.
Author of "Spices and Condiments"

IN *The Anatomy of Dessert*, a book which, like Brillat-Savarin's *Physiologie du Gout*, deserves to rank as one of the few classics of gastronomics, Bunyard writes: "No fruit is more to our English taste than the apple. . . In a careful pomological study of my fellow-men I have met but one who really disliked apples, but as he was a Scotsman born in Bavaria, educated in England, domiciled in Italy, he is quite obviously ruled out."

However, if England is foremost in its appreciation of the apple flavor, to America belongs the honor of having discovered the substances to which this flavor is due.

In 1920, Power and Chestnut published, in the *Journal of the American Chemical Society*, the results of an investigation they had undertaken into the chemistry of the aromatic constituents of apples, Ben Davis, Springdale and Crab being the varieties selected for examination.

The amount of essential oil found to be present was very small the yield obtained from parings corresponding to only 0.0007 to 0.0013 per cent. of the ripe fruit.

The oil is described as a yellowish, somewhat viscid liquid, darkening on keeping. It forms a concrete mass on cooling owing to the separation of small acicular crystals of what is probably a paraffin hydrocarbon.

Analysis showed the odorous constituents to be essentially amyl esters of formic, acetic and caproic acids, together with a very small amount of caprylic ester, and a considerable proportion of acetaldehyde. The acids are probably present, in part, in the free state as well.

The aqueous portion of the distillate was found to contain traces of methyl and ethyl alcohols, as well as furfural. The last must be regarded as a decomposition product.

On the basis of these experiments, the authors took out a patent (U. S. Patent 1,366,541), dedicated for free use in the U. S. A., for artificial apple formic, acetic, caproic and oil formed of the amyl esters of caprylic acids, together with acetaldehyde, preferred proportions being: *iso*-amyl formate 10, *iso*-amyl acetate 10; *iso*-amyl *n*-caproate 5, *iso*-amyl *n*-caprylate 1, and acetaldehyde 2. Two years after the publication of the paper mentioned above, Messrs. Power and Chestnut published a further paper on the subject in the same journal.

The aroma of certain apples contains a rose-like note, and an examination of McIntosh apples revealed the presence, additional to the substance already mentioned, of geraniol, either free or in the form of esters. This terpene alcohol has a sweet and delicate aroma of a rose type, and is an important constituent of the natural otto of roses.

The authors took out a further patent (U. S. Patent 1,436,290), dedicated for free use without royalty, for synthetic apple oil made along lines similar to those of the preceding patent, but with the addition of geraniol, geranyl formate and geranyl acetate, preferred proportions being 1 part of each of these substances to 28 parts of apple oil made in accordance with the former formula.

As will be readily appreciated from the figures already quoted for the percentage of essential oil in apples, the natural oil is not an article of commerce, and an endeavor to extract it on a commercial scale would not prove a profitable undertaking.

Apple essence, therefore, is always synthetic in character. By availing himself of Power and Chestnut's

(*Continued on Page* 647)

TRADE NOTES

Toilet Goods "Committee" Formed

Organization of the Committee of the Toilet Goods Industry with offices at 30 Rockefeller Plaza, New York, has been announced. The committee, which is headed by Northam Warren, president of Northam Warren Corp., New York, and chairman of the legislative committee of the Associated Manufacturers of Toilet Articles, was formed in an effort to deal with problems which are common to the industry as a whole, but which have in the past been taken care of by the separate associations within the industry. It was felt that an effort to co-relate the work of these numerous groups on common problems would lead to more effective work. All of the principal associations in the industry are represented on the committee.

NORTHAM WARREN

Assisting Mr. Warren in the work are the following: Ralph H. Aronson, Bourjois, Inc., New York, member of the Perfumery & Cosmetic Institute; J. Rouss, Talcum Puff Co., New York, Associated Manufacturers of Toilet Articles; Joseph Byrne, secretary, Beauty and Barber Supply Institute, New York; J. I. Poses, A. A. Vantine Co., New York, National Association of Perfume & Cosmetic Manufacturers; Frederick N. Dodge, Harriet Hubbard Ayer, New York, not affiliated with any association; Paul F. Vallée, Roger & Gallet, New York, Perfumery Importers Association; Willard C. Howe, New York, chairman of Industry Relations Council; Clyde L. Balsley, Katherine A. MacDonald, Los Angeles, California Cosmetic Association; A. E. Johnston, Colgate-Palmolive-Peet Co., Jersey City, Associated Manufacturers of Toilet Articles; A. H. Bergmann, Oxzyn Co., New York, representing manufacturers of private brand goods; and George A. Wrisley, Allen B. Wrisley Co., Chicago, Chicago Perfumery, Soap and Extract Association. Mr. Vallée will act as treasurer of the committee.

Matters in which the committee is engaged at the outset will be principally legislative in character. The proposed revision of the Federal Food & Drugs Act, on which three bills have already been introduced in Congress, will be one of the first matters to receive attention. The possibility of repeal or modification of the Manufacturers Excise Tax as it related to toilet preparations is another matter of prime interest which the committee will handle.

It is hoped that the work of the committee will be so successful during the coming year that it may be developed into a permanent association for the entire industry. Its work will in no way affect the work of the various associations which will continue to handle problems relating to their various branches as in the past. It will simply unify the entire industry on a program on any matters in which the whole industry is concerned.

Maine Repeal Bills Introduced

Two bills seeking the repeal of the Maine Cosmetic Law have been introduced in the Legislature of the state now in session. The first is a straight repeal bill but the other, introduced at the request of the State Health Department, would merely modify the law. The latter provides for the registration of cosmetics sold in the state and the payment of a nominal fee. It repeals that part of the old law which would require formula disclosure and the filing of multiple registrations in the case of cosmetics, made under the same basic formula and differing only in minor characteristics such as odor or color. Efforts are being made on the part of the industry to secure passage of the straight repeal measure and to defeat the other proposal. Public hearings will undoubtedly be held at which the industry will be adequately represented.

Importers Act Against Counterfeiting

The perfume houses which specialize in high grade perfumes, among them Bourjois, Caron, Chanel, Ciro, Corday, Coty, Guerlain, Houbigant, Lanvin, Prince Matchabelli, Roger & Gallet, disturbed by recent complaints from many consumers have recently made an investigation of the sale of so-called bulk perfumes in dram bottles and have uncovered a disturbing situation.

It has been discovered that many perfume shops and drug stores specializing in cut rate articles have been in many cases guilty of selling either adulterated or counterfeit perfume, and such sales have been more marked among the more expensive brands. In some cases it was found that 90% of the dram bottles offered as being genuine high-grade perfumes were counterfeited or adulterated.

Many of these shops have been offering bulk perfumes in dram bottles at less than wholesale price and in very many cases the old temptation to offer something else on account of profitless cut rate selling has apparently proved too powerful to resist.

Parfums Weil Paris Formed

Parfums Weil Paris, Inc., has been organized with headquarters at 303 Fifth avenue, New York, to take over the sale and distribution in America of the products of Parfums Weil of Paris. The new corporation is headed by Saul Ganz, president, Max Greenberg, vice-president, Paul H. Ganz, secretary and Sidney Lisner, treasurer. The same personnel has for some years been associated with D. Lisner & Co., distributors of Weil perfumes and the new corporation was organized in order to segregate the perfume business from the rest of the Lisner enterprises, which are quite extensive in the importation of jewelry, novelties and other merchandise. Plans for enlarged publicity are being considered and also for the launching of several new items in the "Zibeline" and "Bamboo" lines.

Flavor Code Officials Named

Members of the Code Authority for the flavoring products industry met last month at the Carlton hotel, Washington, D. C., and elected E. L. Brendlinger, of the Dill Co., Norristown, Pa., as chairman of that body. Mr. Brendlinger represents the Flavoring Extract Manufacturers' Association. As managerial director and counsel, the Code Authority named John S. Hall, attorney and executive secretary of the Flavoring Extract Manufacturers' Association.

The trade practice compliance committee for the industry will include Donald F. Bowey, of the National Association of Manufacturers of Fruit and Flavoring Syrups; W. H. Gast, of the National Manufacturers of Soda Water Flavors; D. T. Gunning, of the Flavoring Extract Manufacturers' Association, and E. E. Perkins, of the Perkins Products Co., representing non-association members.

The Code Authority at the same time approved a plan

E. L. Brendlinger

John S. Hall

of assessment for all members engaged in the flavoring products industry. Under this basis of code assessment, members of the industry whose net sales are less than $2,500 a year will be exempt from payment, while those with sales from $2,500 to $7,500 will pay a flat rate of $5 for the year. Those whose sales exceed $7,500 will pay at the rate of 90 cents per thousand dollars. Business done during the year of 1934 will be used as the basis for calculating annual net sales for assessment purposes.

Colgate Advances Executives

Two Colgate-Palmolive-Peet executives, W. R. Veale and Manning O'Connor, have been advanced to more important positions in the company. Announcement of the promotion was made by E. H. Little, vice-president in charge of sales and advertising.

Mr. Veale, formerly manager of the toilet article

Manning O'Connor

William R. Veale

department, becomes manager of the soap department. He is succeeded by Manning O'Connor, who since the latter part of 1933, has been sales manager of the toilet article department.

"Mr. O'Connor's work in this capacity," said Mr. Little, "has played a big part in the development of the toilet article part of our business and fully merits recommendation to the position vacated by Mr. Veale."

With Mr. Veale, Mr. O'Connor developed the profit stabilization plan which has won wide acclaim from drug dealers and national and local trade associations. This plan assures Colgate dealers a fair profit on toilet article sales.

It will receive even greater emphasis during 1935, according to Mr. O'Connor, who said: "We will definitely continue our profit stabilization plan assuring dealers 33 1/3% profit on direct orders of all toilet articles."

Bost in Larger Quarters

Bost, Inc., Chicago and New York, have been forced by steadily increasing business to seek larger quarters for its New York office which is in charge of B. J. Connolly, sales manager. Space totalling twice the area occupied at the old address, 9 East 40th street has been taken in the office section of the Grand Central Palace at 480 Lexington avenue. Here most modern and attractive offices have been set up for the convenience and comfort of the office staff and the reception of visitors, who are always most welcome at the Bost headquarters.

Béjot Leaves Perfume Syndicate

Adrien Béjot, who for twenty-five years has been secretary of the Syndicate of French Perfumers in Paris has retired from that organization. Mr. Béjot entered the perfume industry in 1894 with the house of L. T. Piver, leaving in 1910 to take up the work of the Syndicate.

Norwich Celebrates Fiftieth Year

On March 1, the Norwich Pharmacal Co., Norwich, N. Y., celebrates its fiftieth anniversary. It was on that date in 1885 that Lafayette F. Moore, a retired minister, arrived in Norwich, with some apparatus for cutting pills and gelatine coating which had been given him by his brother upon retiring from a small pill making business in New York. Mr. Moore hired a room and started making a small line of pills which he peddled himself, the materials being purchased from T. D. Miller's drug store, where the late O. G. Bell was at that time a clerk. Both these men were to play an important part in the organization of the company, Mr. Bell as its first president and Mr. Miller as an early financial backer.

R. S. Eaton

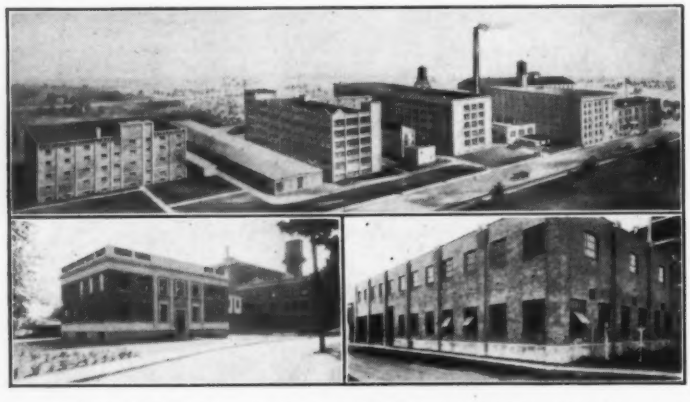
W. G. Peckham

A short time later, Mr. Bell became associated with Mr. Moore under the name Moore & Bell, but it was not long before Mr. Moore became impatient with the slow progress, lack of capital and hard credit and abandoned the enterprise. Mr. Bell then interested several friends in the enterprise which in 1890 became the Norwich Pharmacal Co., with a capital stock of $20,000. It is said that this is the first time the word "pharmacal" was ever used although it has now become a word of frequent use in the industry, both here and abroad.

It is scarcely necessary here to record the eventful and prosperous history of the company nor to set down names of the many men who contributed to its rapid progress. Much of the early success was based upon the product "Unguentine", which had been made under the name "Jeffrey's Universal Family Ointment" as early as 1828. It finally came into the hands of the company in 1886 but not until 1892 did those in charge realize its possibilities and start it upon its successful sales career.

The Norwich Pharmacal Co. now has an extensive modern plant, some views of which are shown in the accompanying picture. It manufactures pharmaceuticals, proprietaries and toilet preparations which are known throughout the world. Branches are in operation in all of the principal cities and its sales efforts reach to all parts of the world. Heading the company at present is W. G. Peckham, president. R. S. Eaton is treasurer and general manager.

It is a pleasure to congratulate the company upon its success during the last fifty years and to wish for its continued growth and prosperity.



Present Buildings of the Norwich Pharmacal Co.

Tampa Beauty Shop Law Appealed

Part of the new Tampa ordinance regulating beauty shops, sponsored by the Tampa Beauticians Association, was held invalid in a decision handed down by Circuit Judge Sparkman on February 6. Fines imposed on two operators in test cases appealed from city courts, were upheld, making the parts of the ordinance requiring beauty shops to register with examiners and pay certain fees valid.

Sections of the ordinance relating to beauty schools and colleges were held invalid by Judge Sparkman, who said in his opinion that it vested in the board of examiners "arbitrary and unreasonable powers," not authorized by the city charter. He specifically ruled out a section which allowed the board of examiners to determine the number of instructors in each school.

Board of Trade Hears Bardo

C. L. Bardo, president of the National Association of Manufacturers, was the speaker at the monthly luncheon of the New York Board of Trade, Inc., held at the Pennsylvania hotel, New York, February 13. Mr. Bardo's subject was "Hold Fast to That Which is Good," and his argument was principally for a return to methods of business in effect before and during the depression, and an abandonment of government regulation and interference with business. The speaker was introduced by P. C. Magnus, president of Magnus, Mabee & Reynard, Inc., and president of the Board of Trade, and the proceedings were broadcast over the WEAF network of the National Broadcasting Co.

Action taken by the Board at the meeting included endorsement of the program for business recovery sponsored by the National Association of Manufacturers and a resolution in opposition to the ratification of the Child Labor Amendment to the Constitution, now pending in the New York Legislature.

Hunnewell Soap's Centennial

Hunnewell Soap Co., Cincinnati, is engaged this year in the celebration of its 100th Anniversary. The company was founded April 10, 1835 by Daniel Hunnewell and upon his death he was succeeded in its control and management by his son, Greenwood Hunnewell, who in 1900 sold the business to William A. Webb.

A unique feature of the company's long history is that for ninety-five years it was directed in succession by only three managements. In 1930 Leslie Webb, Jr., took over the management of the company and assumed control of the outstanding stock in 1934. During his administration the business has been materially expanded and branch warehouses have been opened in New Orleans, New York and Des Moines, Ia. The Hunnewell Soap Co. manufactures a complete line of soaps for the industrial trade, many of its specialties being scouring and polishing products.

Schoenith Opens Plant at Charlotte

J. F. Schoenith, president of the J. Schoenith Candy Co., Charlotte, N. C., has purchased the building at 1410 West Morehead street in that city and will begin the manufacture of toilet preparations and of vanilla extract within the next six weeks. It is reported that Mr. Schoenith acquired the building at a cost of approximately $40,000 and that he will spend between $10,000 and 15,000 for equipment.

Gabrielsen Heads Ambrosia Sales

John E. Gabrielsen, has been appointed general sales manager of Hinze Ambrosia, Inc., one of the units of Allied Products, Inc., New York City. Although still in his twenties, Mr. Gabrielsen has been active in the company's work and that of its associated companies for twelve years. He started at 15 with the California Perfume Co., New York, and during the first six years of his work with the company filled about every type of position in the accounting department, stepping into a new job every few months.

JOHN E. GABRIELSEN

From the California Perfume Co., he was transferred to the manufacturing unit, Allied Products, Inc., Suffern, N. Y., and three months later back to the newly organized Hinze Ambrosia, Inc., as office manager. Two years later D. H. McConnell, Jr., president of the company made him assistant sales manager and in another two years he became general sales manager.

Mr. Gabrielsen's rapid advance to positions of greater and greater responsibility is a tribute not only to his own energy and initiative but also to the company which has been quick to recognize and reward his unusual abilities.

Leigh Cosmetics Appoints La Prelle

William H. Hardy has purchased the interest of Samuel C. Thomas, formerly president of Leigh Cosmetics, Inc., and is now in complete control of the organization. Mr. Hardy has been associated with the company for sixteen years and is well acquainted with the line and with the company's many customers.

WILLIAM H. HARDY

THOMAS LA PRELLE

The entire line has been re-packaged in very modern and attractive style and plans are now under way for the launching of a sales campaign covering the entire country. The products themselves have not been changed at all and many of them are still being manufactured by the original formulas developed by the late Dr. Charles N. Leigh who founded the company many years ago. In fact the entire nucleus of the organization has been with the company for many years, five department heads having a total service of eighty-nine years with the company.

The sales organization is now in the process of formation under the direction of Thomas La Prelle who will act as general sales manager. Mr. La Prelle is exceptionally well known to buyers throughout the United States and has formulated plans for placing the line again in the forefront of the cosmetic trade. General offices and laboratories of the company will be continued at 351 West 48th street, New York.

Lelong Appoints Representatives

Don S. Cowling, sales manager of Lucien Lelong, Inc., Chicago, who has been located at the Pacific Coast office of the company in Los Angeles for several years, has returned to the Chicago office, and Larry G. Heiner has been appointed Pacific Coast manager of the company in charge of that office. Mr. Heiner has been associated for some years with prominent houses in the toilet preparations industry and is well acquainted with the trade and conditions throughout the Pacific territory.

Walter C. Dickson and T. J. Druding have been added to the company's sales staff. Mr. Dickson will cover New York State, Delaware, New Jersey and eastern Pennsylvania. Mr. Druding will travel in Iowa, Missouri, Kansas, North and South Dakota, Minnesota and Wisconsin.

Planning for Drug Trade Dinner

Plans are rapidly being completed for the Tenth Annual Drug Trade Dinner, to be held in New York in March. The committee in charge is almost ready to announce the speaker of the evening and it is believed that his name will create a sensation in the trade when it can be released. Robert L. Lund, chairman of the board of directors of the Lambert Pharmacal Co., St. Louis, will officiate as toastmaster.

Reservations are already pouring in to the Drug Chemical & Allied Trades Section of the New York Board of Trade, Inc., which sponsors the affair and already well over 800 reservations have been made. This indicates that last year's record attendance of more than 1200 will be exceeded this year. The dinner will be held the evening of March 21 at the Waldorf-Astoria in New York. Ray C. Schlotterer, secretary of the section is receiving reservations at his office, 41 Park Row, New York City.

D'Orsay's New Showroom

Parfums D'Orsay, New York, has consolidated its offices and showrooms at 114 East 25th street. Here most attractive quarters have been arranged for the convenience of buyers and a beautifully directed showroom, shown in the accompanying photograph, has been arranged.

Paul Delaize, treasurer and general manager of the company has just returned from Paris where the activities of the American branch were discussed with officials of the French house. Several new products are soon to be launched and the sales force has been augmented by the addition of several new men. Plans for an elaborate and extensive advertising and publicity campaign for 1935 are already in the course of preparation.

Flavor Makers Act on Legislation

The Flavoring Extract Manufacturers' Association has recommended that its members endorse West Virginia Senate Bill 35 and its companion House Bill 199 or Senate Bill 41. These bills for the repeal of the West Virginia Prohibition Act and the control of liquor within the State specifically exempt from regulation "any food products known as flavoring extracts manufactured and sold for cooking and culinary purposes only and not for beverage purposes."

The association has also advised its members to urge their friends in California to protest to local legislators against Senate Bill 929 in that State, which would tax medicines ten per cent, extracts ten per cent and fountain syrups, bottled drinks and soft drinks twenty per cent.

Fetsch Heads California Cosmetics

The California Cosmetics Corp. of Hollywood, Calif., has advised us of the election of F. A. Fetsch as president. With him are associated A. M. Fetsch, vice-president, and Claude S. Fetsch, secretary-treasurer.

Miller Advanced by Soap Assn.

The Association of American Soap and Glycerine Producers, Inc., with offices at 386 Fourth avenue, New York City, has advised us that J. M. Miller has been appointed office manager. Roscoe C. Edlund is executive secretary and in full charge of the Association's activities.

Shinn Leaves Wieboldt's

L. P. Shinn, drug and toilet goods buyer for Wieboldt Stores, Inc., Chicago, has recently left that organization to become associated with the Ford Hopkins Drug Co. in a merchandising capacity.

Frailey Buys Thinc Products

The business of Thinc Products, Inc., New York, has been acquired by P. L. Frailey and associates, who plan an aggressive campaign of promotion for the items in this line. The products include "Thinc" hand cream and "Thinc Facial Cleanser Tonique." Mr. Frailey and those associated with him also own "Rinex," a proprietary medicine.

Sales Builders Warns Trade

Sales Builders, Inc., Los Angeles, distributors of the Max Factor line of toiletries, has sent out warning notices to independent retail drug outlets in Texas, Oklahoma and Arkansas, to watch out for a woman, claiming to be a travelling representative of the Factor organization and attempting to cash spurious pay checks forged with the name "Max Factor's Make-Up Studio". The woman has used several names and the checks are fictitiously imprinted with the name "Bank of America, Hollywood, California". The company will appreciate any information as to the activities of this woman.

Ogilvie's Work with Children

Dr. Gladys Ogilvie of Ogilvie Sisters, New York, is directing classes in the care of the hair especially for children at Mandel Brothers, Chicago department store. The plan is to teach children at an early age the care of the hair, the use of the brush and of beneficial

preparations. A "Kiddies' Brushing Bar" shown in the accompanying picture has been established and Dr. Ogilvie personally directs in the correct use of the brush and of the recently perfected Ogilvie hair lotion for children. The new section with its classes is becoming increasingly popular with the children and with mothers as well and the idea will probably be extended to other sections of the country.

Syndicate Store Group to Meet

The National Perfume and Cosmetic Manufacturers Association, Inc., organizd about a year ago to promote the welfare of manufacturers of popular-priced cosmetics and toilet preparations, has now been incorporated under the Membership Incorporation Law of the State of New York. By-laws covering the activities of the association and the duties of the officers and directors have been drawn up.

CHARLES H. OESTREICH

Charles H. Oestreich, president, advises that a general meeting of the membership of the association has been called for March 12 at the Hotel McAlpin in New York City. At this time the by-laws will be presented to the membership and plans for securing additional membership and for other activities of the association will be discussed. Any manufacturer of cosmetics and toilet preparations, or anyone interested in this line, may attend this meeting. Invitations and tickets will be issued to those desiring to attend, upon application to the secretary, J. I. Poses, 71 Fifth avenue, New York.

Packaging Show Awards Voted

More than usual interest is being displayed in the Fifth Packaging Exposition and Conference, which will be held at the Palmer House, Chicago, from March 5 to 8. The American Management Association, sponsoring organization of the show, anticipated a larger number of exhibits and a greater attendance than last year.

The fourth Irwin D. Wolf trophy for distinctive merit in packaging design has been won by the "Hoffman" club soda bottle, according to an announcement of the judges, made public on February 12. The A. M. A. award for tubes will go to the "Colgate's" giant size rapid shave cream, designed by Simon de Vaulchier and entered by the Colgate-Palmolive-Peet Co., Jersey City. Honorable mention among tin containers was won by the "Pebeco" tooth powder can, used by Lehn & Fink Products Co. and entered by the Continental Can Co., New York. Among shipping containers, first place went to the four-piece quick removable tierce head with curled bilge hoops, designed by T. S. Eagen and used by the Procter & Gamble Co., Cincinnati. The "Westite" closer for tubes, designed by Charles J. Westin and entered by the F. J. Stokes Machine Co., Philadelphia, won an award in the class of important technical developments.

These awards will be presented at the annual banquet on March 5, and the packages and other exhibits will be on display during the four days of the show. Several important talks by authorities in the industry have been scheduled, and the various conferences and clinics are expected to be more interesting than ever. One feature will be a "Then and Now" symposium, in which the old and new will be dramatized in a pageant of packaging.

Ittner Addresses American Institute

Dr. Martin Hill Ittner, director of research and chief chemist of the Colgate-Palmolive-Peet Co., Jersey City, was guest speaker at a round table discussion conducted by the American Institute of the City of New York in its meeting rooms on February 11. Speaking on "Utilization of Odorous Substances," he traced the development of the use of aromatic materials in soaps and cosmetics and in general industrial products.

An interested discussion followed Dr. Ittner's talk, led by Col. Marston T. Bogert, professor of organic chemistry at Columbia University, as chairman of the meeting.

Cosmetologists to Meet in New York

The New York State Hairdressers and Cosmetologists Association, Inc., with the cooperation of 24 units and their hundreds of members, will conduct its 1935 Spring "Official" show and convention at the Hotel New Yorker, New York, from March 25 to 28. Prominent beauty editors will be among the convention speakers, and there will be the usual large number of exhibits by manufacturers in the trade.

Grimes Heads Potash Company

H. I. Grimes was re-elected president of the Independent Potash and Chemical Co., of Oklahoma City, at a special stockholders' meeting recently. George E. Montgomery of Carlsbad, New Mexico, was elected vice-president to succeed R. A. Chase of New York, who resigned. Miss Alma Tally Roberts was re-elected secretary.

Directors are Harry E. Turner, Oklahoma City; R. C. Jones, Cushing; W. C. Ferguson, Denver; Montgomery and Grimes.

Barbasol Increases Plant Space

Preparing for expansion of its manufacturing program, the Barbasol Co. of Indianapolis has leased for ten years a four-story factory building adjoining its present plant. The company is already utilizing part of the newly-leased building, and within a short time, after necessary remodeling and modernizing is completed, its office and manufacturing operations will cover both structures.

The total rental, it was announced, for the ten year period is approximately $100,000, with option to purchase at any time during the ten years. The property is owned by the Standard Sanitary Manufacturing Co. of Pittsburgh.

The building was erected about ten years ago at a cost, including the land, of about $315,000. It is a fireproof structure, of brick, steel and concrete, and has about 60,000 square feet of floor space. The entire property, including a shipping yard and garage building, covers an area of 204 by 162 feet.

Coming Conventions

Fifth Packaging Exposition, Palmer House, Chicago, March 5-8, 1935.

Annual Drug Trade Dinner, Waldorf-Astoria hotel, New York, March 21, 1935.

International Beauty Shop Owners' Convention, Hotel Pennsylvania, New York, March 11-14, 1935.

Federal Wholesale Druggists Association, Waldorf-Astoria hotel, New York, March 13-15, 1935.

New York State Hairdressers and Cosmetologists Association Official Convention, Hotel New Yorker, March 25-28, 1935.

Mid-West Beauty Trade Show, Sherman hotel, Chicago, April 1-3, 1935.

American Chemical Society, Hotel Pennsylvania, New York, April 22, 1935.

American Drug Manufacturers Association, Homestead hotel, Hot Springs, Va., May 6, 1935.

American Pharmaceutical Manufacturers Association, Hershey hotel, Hershey, Pa., June 3, 1935.

Proprietary Association, Greenbriar hotel, White Sulphur Springs, W. Va., June 5-7, 1935.

National Association of Retail Druggists, Netherland-Plaza hotel, Cincinnati, O., September 23-24, 1935.

National Hairdressers' and Cosmetologists' Association, Hotel Pennsylvania, New York, October 13, 1935.

United Medicine Manufacturers of America, Waldorf-Astoria hotel, New York, October 17 and 18, 1935.

Exposition of Chemical Industries, Grand Central Palace, New York, December 2-7, 1935.

Fashion Toiletries, Inc., Formed

Fashion Toiletries, Inc., has been organized with headquarters at 14 East 38th street, New York, to offer bath and boudoir toilet preparation ensembles and other items. The firm is headed by Rudolph Storfer, Lee DeBoer and Mort Livingston.

FACTORY BUILDING LEASED BY THE BARBASOL CO.

Cosmetic Packages Win Awards

Cosmetic packages were prominent in the list of awards given at the second annual contest for syndicate store packages, held recently. The contest was sponsored by the *Syndicate Store Merchandiser*, Newark, N. J., a publication devoted to the interests of the limited price variety stores.

The cup winning package was the tin box for "Sentinel" adhesive tape, made by the Forest City Rubber Co. Second place went to Hall & Ruckel Co., for its "X" cream deodorant. Third and fifth places were taken by Lehn & Fink with "Lysol Hygienic" soap wrapper and "Pebeco" tooth powder can while fourth went to A. Sartorius Co., for its "Plat-Num" nail polish remover bottle. Several other cosmetic articles received honorable mention, notably, "Charmette" hair removing glove and "Faoen" perfume bottles.

The judges were Ruth Fleischer, managing editor of *Advertising Arts*, George Switzer, noted designer, and William F. Longyer of Pratt Institute. Plans are already under way and entries are being received for next year's renewal of the contest.

PACKAGES ENTERED IN CONTEST AND CUP AWARDED TO FIRST PRIZE WINNER

Liquid Petrolatum Duty Free

In a decision (T.D. 47484) handed down recently by the Court of Customs and Patent Appeals in Washington, liquid petrolatum, commonly known as mineral oil, is held free of duty under Paragraph 1733 of the tariff act. This paragraph holds free of duty "petroleum and all distillates obtained therefrom". In the past mineral oil has been held dutiable at 25 per cent as a medicinal preparation. The decision arose out of the case of S. Schwabacher & Co., Inc. vs. the United States. It reverses the previous decision of the United States Customs Court in the same case and remands the case to the lower court for further proceedings not inconsistent with the decision.

Milwaukee Pharmacists Elect

Clem A. Czerwinski was unanimously re-elected president of the Milwaukee County Pharmacists' association at the annual meeting held January 18 at the Elks club, Milwaukee. Directors elected from the 20 legislative districts are Ray Miess, O. T. Beeck, A. A. Krygier, M. B. Tobleske, E. E. Kunze, David Marcus, Walter C. Raasch, T. B. Curley, Emil C. Horn, A. J. Dettlaff, E. V. Lemanski, Frank Kuskowski, Andrew Toth, Ernst Druschke, M. R. Hummel, William Lippold, R. J. Ohm, P. C. Janke, Harry Weissenborn and Alvin Stemke. Remaining officers will be elected by the board of directors at a future meeting.

Foragers Hear Corcoran and Welch

Edward T. Corcoran, counsel, and Charles S. Welch, secretary, of the cosmetic Code Authority, were the guests of the Foragers at their regular Wednesday luncheon on February 6 at the Club Room, Herald Square hotel, New York. Mr. Corcoran and Mr. Welch both gave very interesting talks and answered questions concerning the operation of the codes, as they pertain to the industry.

Bienaimé Organizes Own Company

Paris press reports state that Bienaimé, S.A., has been organized there with a capital stock of 600,000 francs, the incorporators being Robert Bienaimé and Pierre Bassaler. The new company will manufacture beauty products, soaps and hair dyes. The incorporators are well known in this country, having been associated with the house of Houbigant for some years.

Florida Hairdressers Discuss Regulation

Regulating of beauty practice by state legislation and plans for projects to aid the beauty operators occupied the greater part of the time of more than one hundred members of the Florida Hairdressers and Cosmetologists Association which met the latter part of January in the Royal Park inn, Vero Beach, Fla. Jerome O. Brian, president, presided.

1935 Soap Sculpture Competition

Entries are now being received for the 11th annual competition for small sculptures in white soap, according to the National Soap Sculpture Committee, 80 East 11th street, New York. The contest will close on May 1, and all sculptures submitted will be exhibited at Rockefeller Center, New York, during June.

Prizes totalling $2,500 are offered by the Procter & Gamble Co., Cincinnati. Nearly 4,000 carvings were entered in last year's competition by amateur and professional sculptors of all ages.

Marriage of Gert Keller

We have received an announcement of the marriage of Gert Keller of Schimmel & Co., Inc., New York to Miss Ruth Jane Williams, only daughter of Mr. and Mrs. Ralph W. Williams of Kirkland, Wash. Miss Williams is a journalist who has spent much time in Europe, the Orient and other far places. She was for some time associated with the Paris edition of the New York *Herald-Tribune* and was also associated with the International News Service in Paris.

Adkins Now with Schimmel

W. H. Adkins has joined the organization of Schimmel & Co., Inc., New York and will be in charge of sales in New York Metropolitan territory. Mr. Adkins is well known through long association with the essential oil and aromatic industry. For some years he was purchasing agent for Givaudan-Delawanna, Inc., and prior to that was connected with the Monsanto Chemical Works.

Meisner Heads Wisconsin Bottlers

Grover A. Meisner, Meisner Beverage Co., Wittenberg, was re-elected president of the Wisconsin Bottlers of Carbonated Beverages at the annual convention held January 22 and 23 at the Hotel Plankinton, Milwaukee. Michael Kratzer, West Bend, was elected vice-president and E. G. Jansen, Sheboygan, secretary-treasurer. These officers together with W. W. Noble, Mineral Point; O. T. Husting, Milwaukee; G. H. Trengrove, Eau Claire; Charles Gray, Janesville, and H. M. Lampert, Madison, constitute the board of directors. Speakers at the convention included Tom Moore, Minneapolis, president, A.B.C.B.; George Currie, secretary, Sheboygan County W.R.A. Compliance board, and William Kropf, executive secretary of the code authority for the bottlers.

Chain Drug Store Sessions Held

The annual conventions of the Associated Chain Drug Stores and the Affiliated Chain Drug Stores were held at the Waldorf-Astoria hotel, New York, from February 11 to 13. The meetings were featured by interesting addresses and by lively discussion of the problems of the trade.

New Bottlers Flavor Added

W. Gross and J. Larson, president and vice-president respectively of the Grandpop Bottling Co., Cincinnati, have added "Mil-Coa," a soft drink extract to their large line of flavoring extracts.

Missouri Gets a "Tugwell Bill"

A bill has been introduced in the Missouri General Assembly by Mrs. Gladys B. Stewart, Republican, of Douglas County. This would place a graduated stamp tax upon the sales value of cosmetics and would also prohibit the manufacture, shipment and sale of adulterated, misbranded, falsely labeled or falsely advertised cosmetics. The bill is patterned after the "Tugwell Bill" and is a very severe regulatory measure.

Insecticide Assn. Approves Mead Bill

A report recommending that its members give their full support to efforts now being made to correct deficiencies in the Federal Food and Drugs Act in the interest of the consumer, at the same time safe-guarding the business of honest and reputable manufacturers, has been made by the legislative committee of the National Association of Insecticide and Disinfectant Manufacturers.

The report issued by John H. Wright, vice-president of Zonite Products Corp. and chairman of the committee, includes a comparative analysis of the three food and drug bills now pending in Congress with favorable emphasis on the Mead Bill which is being sponsored in the House of Representatives by Representative James M. Mead of New York.

Colgate Second in Bobsled Races

Gilbert Colgate, last year's North American champion in bobsled racing placed second to the famous Stevens brothers of Lake Placid in the A. A. U. bobsled championships, held there February 1. In order to win the Stevens sled had to beat Mr. Colgate's world record of last year. Four heats of one and one-half miles each or a total of six miles were completed by Mr. Colgate and his team in 7:54:93, the Stevens team covering the four heats about four seconds faster.

Perfume Used at Orange Show

Orange blossom perfume which pervaded the air of the festival building at the Florida Orange Festival, held in Winter Haven, Fla., Jan. 22 to 26, proved a great attraction and novelty to the thousands attending the orange show. Machines used to spray the perfume in the air were similar to the ones used at the Century of Progress in Chicago, where it attracted wide attention.

With the increased use of air conditioning equipment in stores and large buildings in Florida, manufacturers of orange blossom odors expect to create a new outlet for use in spraying the air.

M. V. C. Laboratories Incorporated

The M. V. C. Laboratories, Inc., Toledo, O., was chartered last month with a capital of $50,000. This new Ohio corporation is understood to be a reorganization of the company by the same name which was started out of the old Mountain Varnish & Color Works as a subsidiary to manufacture toilet preparations. The du Pont interests purchased the plant and industrial paint business, but did not take over the cosmetic manufacturing subsidiary.

Harper Groups Hold Convention

At the joint convention of the New England and Middle Atlantic States Harper Method Associations at the Hotel Astor, New York, January 13, 14 and 15, the two groups merged forces. Henceforth they will be known as the Eastern Harper Method Association with offices evenly divided between the two sections.

First officers are Miss Bertha Pinney, Providence, R. I., president; Miss Isabel Eyde, Lancaster, Pa., vice-president; Mrs. Pearl Sanders, Brattleboro, Vt., secretary; Mrs. Anna Lewis, Binghamton, N. Y., treasurer.

The three day session was most stimulating being primarily built around business building ideas for 1935. Shop owners and operators present numbered about 145, hailing from Birmingham, Ala., to Lewiston, Me., and all points between. Business reports indicate that prosperity is not quite so wary of making a public appearance as formerly. Greater confidence in the business future for 1935 was expressed by practically all.

Big highlight of the convention was the introduction of "7 Steps to Prosperity". The latter is a unified plan to build up business for 1935. It is a yearly program including newspaper ads, display cards, service booth cards, and handwritten letter-folders for direct mail purposes. From the enthusiasm expressed at the convention it is anticipated its use will greatly increase shop profits in 1935. Social events included a tea on Sunday and a Banquet-Mystery Party on Monday night. The retiring officers who successfully conducted the affair were president, Miss Mary Baird, Schenectady, N. Y.; vice-president, Mrs. Ida Goodsell, Geneva, N. Y.; secretary, Mrs. Florence Bissell, Paterson, N. J.; treasurer, Mrs. Marie McConnell, Englewood, N. J.

P. & G. Acquires Canadian Firm

Officials of Procter & Gamble have announced that negotiations had been completed whereby that company had acquired the business and properties of J. Barcelou & Cie., Ltd., of Montreal, Que., one of the important independent soap manufacturers in Canada. The purchase was for cash, but the amount involved in the transaction was not revealed.

The firm of Barcelou & Cie., Ltd., was established in 1865 and is one of the oldest soap factories in Canada, manufacturing several brands of toilet and laundry soap and allied products. The business of the newly acquired concern is concentrated almost wholly in the Province of Quebec.

The company has also taken over the properties and business of the Philippine Manufacturing Co., Manila, Philippine Islands, makers of soaps, cooking fats, and allied products. The purchase was for cash, but the amount involved was not disclosed.

The business of the Philippine Manufacturing Co. was established in 1913 and the plant at Manila occupies fifteen acres with twenty-five buildings, and employs nearly five hundred people.

R. L. Watkins Moves to New York

The offices of the R. L. Watkins Co., makers of "Dr. Lyon's" tooth powder and "Mulsified" coconut oil shampoo, have been moved to 170 Varick street, New York, where other divisions of Sterling Products, Inc., are located. The headquarters of the Watkins company were formerly in Newark, N. J.

Albright with Commercial Solvents

Commercial Solvents Corp. advises us that J. D. Albright, Jr. has been appointed branch manager of the Buffalo office with headquarters at 189 Van Rensselaer street. Mr. Albright was formerly chemist in charge for the Southern territory of the U. S. Bureau of Industrial Alcohol. He was associated with the Bureau for eleven years.

Charm Products Moves Denver Branch

Charm Products, Inc., Los Angeles, has recently moved its Denver, Col., branch to a new location at 534 16th street in that city. J. Whitacker has been appointed manager.

Fritzsche's Annual Dinner Dance

The annual dinner dance of the employees of Fritzsche Brothers, Inc., was held February 9, at the Astor Hotel, New York. Of the one hundred and sixty employees, there were one hundred and thirty in attendance, inclusive of the Officers: F. H. Leonhardt, president; Wm. A. R. Welcke, vice-president and treasurer; B. F. Zimmer, second vice-president, Chicago; Geo. L. Ringel, third vice-president, Columbus; A. D. Armstrong, secretary; J. H. Montgomery, assistant secretary; R. R. Redanz, assistant treasurer, and the following representatives from nearby territories: J. R. Eller, Columbus; M. J. Niles, Boston; Wm. F. Kiefer, Philadelphia; J. F. Shumaker, Columbus; Geo. Fellows, Atlanta, Georgia; J. H. McNamara, New York; C. Schneider, New York; J. J. Cummings, New York. This was the largest and most enjoyable in the series of this delightful annual family party, the only absentees being those inconveniently far away.

The number of employees has been increased by approximately 25% during the last year, made necessary by the greatly increased volume of business enjoyed by the firm. It is worthy of note that throughout the depression years from 1930 to 1934 the organization was kept entirely intact. The length of service represented at the dinner is also of special interest. Of the total one hundred and sixty employees, only fifty-three have been with the firm less than five years; thirty from five to ten years; forty-three from ten to fifteen; fifteen from fifteen to twenty years; twelve, twenty to twenty-five, one, twenty-five to thirty, three, thirty-five to forty, two, forty to forty-five and one, precisely forty-nine years—a quite unusual record.

In keeping with the usual custom of this annual dinner, which is solely for pleasure, there was no speech-making, except a few words of welcome by F. H. Leonhardt, president, who also led in a silent standing tribute to the memory of F. E. Watermeyer, former president, who passed away in March, 1934.

In the accompanying picture, the officers are shown, beginning ninth from the left in the second row as follows: J. H. Montgomery, A. D. Armstrong, W. A. R. Welcke, F. H. Leonhardt, B. F. Zimmer, George L. Ringel.

Fritzsche-Schimmel Relations Explained

Fritzsche Brothers, Inc., New York, has sent out a notice to its customers, advising them that Hermann Fritzsche, president of Schimmel & Co., Inc., New York, has never been connected with Fritzsche Brothers, Inc., in any capacity and there have been no changes in the organization of Fritzsche Brothers, Inc. as a result of the termination of their sales agency arrangement with Schimmel & Co., Miltitz, Germany. The notice points out also that no one from Fritzsche Brothers, Inc. is connected in any capacity with Schimmel & Co., Inc., New York.

Since its purchase by F. E. Watermeyer and subsequent incorporation in 1919, Fritzsche Brothers, Inc. has been an entirely independent company with its own laboratories, manufacturing facilities and direct sources of supply. It acted for Schimmel & Co. merely as a sales representative for the latter's products and will continue to supply these products to any of its customers who require them.

Dr. Ernest S. Guenther, chief research chemist for Fritzsche Brothers, Inc., is at present touring the Middle West after which he will go to the Pacific Coast which he will cover from the Canadian border South to Los Angeles. Dr. Guenther will be away about six weeks.

Hanser Soap Increases Capacity

The latest addition to the plant of the John Hanser Soap Co., Milwaukee, is just being completed. It houses 10 large kettles, giving the company 16 in all, which will increase capacity six times. The firm is producing a carload of soap a day with demand for the company's milled borax soap flakes increasing daily, according to John Hanser, Jr., head of the concern.

Senior Qualifies as Fisherman

We have received a very interesting communication from Charles L. Senior, vice-president of Florasynth Laboratories, Inc., New York. He reports that he has just returned from Miami and that he caught three sail fish. This ought to prove him presidential timber. As we recall it, neither Mr. Hoover nor Mr. Roosevelt ever did as well.

Givaudan Plans West Virginia Unit

Givaudan-Virginia, Inc., has been organized to supplement the production of aromatic chemicals now manufactured by Givaudan-Delawanna, Inc., New York, and the house of L. Givaudan & Cie., Geneva. A tract of land near Charleston, W. Va., has been purchased and two large experimental laboratories will be opened in the near future. This location is in the heart of the industrial chemical production center and if the preliminary work results as officials of the company hope, the manufacturing facilities there will be materially expanded.

According to Dr. Eric C. Kunz, executive manager of Givaudan-Delawanna, Inc., the present plant at Delawanna, N. J., has been expanded as far as seems practical considering the character of the section in which it is located, and it is his hope that the new location near Charleston will put the company in a position better to achieve its aim of serving consumers of aromatic chemicals to the best of its ability.

New Cleveland Cosmetic Company

A new Cleveland concern manufacturing dispensers for soap, perfumes and cosmetics is Charles C. Smith & Sons.

Gagarin Opens Sales Offices

Prince Alexis N. Gagarin, Inc., recently opened sales and executive offices at 551 Fifth avenue, New York City, and is now planning a concentrated advertising program which opened with an advertisement in the metropolitan edition of *The New Yorker*. Similar advertisements will appear in *Harper's Bazaar*, *Vogue*, and *Junior League Magazine* and plans are also being made for extensive newspaper publicity in the cities in which the company's line of perfumes has been introduced.

PRINCE GAGARIN

The company was incorporated about two years ago with Prince Alexis N. Gagarin, president, V. A. Hanson, vice-president, and B. G. Hamilton, secretary and treasurer. Baron Boris A. Mengden has been appointed general merchandising manager.

Prince Gagarin was for years interested in blending perfumes as a hobby and later at the suggestion of friends decided to commercialize some of his blends. One of the unusual packages recently placed on the market by the company appears in our New Products and Packages Section this month.

Photo-Pac Now Lady Martha Co.

Lady Martha Co. is the new name recently adopted by Photo-Pac Co. of Brooklyn, manufacturers of vanities and toilet preparations. The company is located at 2036 66th street, Brooklyn, N. Y.

Thirty Years with Stokes & Smith

Carl E. Schaeffer, sales manager of the Stokes & Smith Co., Philadelphia, Penn., will complete his thirtieth year of association with that company this year.

Mr. Schaeffer was born in New Jersey but spent part of his boyhood in Philadelphia where he was educated. After being graduated from the Central Manual Training High School, he joined the engineering department of the Stokes & Smith Co., which was then located at 1011 Diamond street, Philadelphia, manufacturing paper box machinery only. The total force at the peak in those days was 30, and the business was confined to the United States.

CARL E. SCHAEFFER

Over the years Mr. Schaeffer has served in all departments of the company, including the cost, purchasing, and sales departments, giving him a thorough knowledge of all phases of the business. As time went on, the company added packaging and filling machines to its line of equipment; and a plant was established in England to serve European customers. As sales manager, Mr. Schaeffer, together with other representatives, has made Stokes & Smith equipment so well known that sales are now made in all parts of the world; and it requires at present in the Philadelphia plant a staff of 250 to produce and handle this business. The plant covers 13 acres and there are eight main buildings grouped around an open square of ground, which includes gardens for employees and an athletic field. Agencies are maintained in South America, Central America, Australia and New Zealand.

Mr. Schaeffer was married in 1910 and now lives in Philadelphia. His hobbies are golf and motoring, and he is also active in church work, being a vestryman of the P. E. Church of the Resurrection of Philadelphia, and in Masonic circles he is a past master of William L. Elkins Lodge 646 F. & A. M.

He is actively interested in all movements to improve packaging service and was one of the organizers and at present is a director of the Packaging Machinery Manufacturers Institute. In 1930 the Stokes & Smith Co. presented an engraved wrist watch to Mr. Schaeffer on the completion of a quarter of a century of service with the company.

Importers Ask Stabilization

In a brief filed at the hearing on price stabilization methods and policy, the Perfumery Importers Association, Inc., states its position on this subject. The Association through Hugo Mock, its general counsel, argues that there is a wide difference between the maintenance of prices on trade marked articles and those not trade marked and that resale price protection on the former is necessary both for the manufacturers and for the protection of the public.

du Pont Dedicates Laboratory

E. I. du Pont de Nemours & Co., Wilmington, Del., dedicated and opened on January 22, its new medical research laboratory to be known as the Haskell Laboratory of Industrial Toxicology, the purpose of which will be to test thoroughly, from a health standpoint, all products produced by the company before they are placed on the market. The laboratory was planned to meet a need which has developed in this country because of the great growth of the chemical industry as represented by du Pont. Many new products have been developed in recent years and other new products are constantly being developed, some of them through entirely new processes. A function of the laboratory will also be to study the possible effects of the new products upon the health of employes during the process of manufacture.

DR. W. F. VON OETTINGEN

Its staff will be the largest and its equipment the most extensive of any laboratory in the world. Its director is Dr. W. F. von Oettingen who received his chemical training at the University of Jena and Goettingen, Germany, and his Ph. D. degree at the University of Goettingen. Later he studied medicine and the relation between chemical constitution and pharmacological action. Finishing his pre-clinical course in Goettingen, he entered the University of Heidelberg, where he specialized in internal medicine and pharmacology. He came to this country in 1924 and the following year joined the staff of the medical school of Western Reserve University in Cleveland.

The exercises in connection with the dedication of the laboratory consisted of a scientific meeting in the morning at which addresses were made by Dr. R. R. Sayers, medical officer in charge of the office of Industrial Hygiene and Sanitation of the Public Health Institute, Washington, D. C., on "Relations between Government and Industrial Hygiene." There were also addresses by Dr. G. H. Gehrmann, medical director of the du Pont company, who spoke on "Development of Industrial Medicine," and by Dr. W. F. von Oettingen, director of the laboratory on "The Problems of Industrial Toxicology."

The afternoon was spent in inspection of the laboratory facilities and the ceremonies were concluded with a dinner at night at which addresses were made by Lammot du Pont, president of the company, vice-president Harry G. Haskell for whom the laboratory is named, and by Dr. Gehrmann and Dr. von Oettingen.

Cosmetic Container Code Approved

The National Industrial Recovery Board has announced approval of an appendix to the code for the fabricated metal products manufacturing and metal finishing and metal coating industry for the cosmetic container manufacturing industry.

The appendix is concerned only with definitions, a governing body for the industry and trade practices. It is applicable to the master code's basic hours and wages provisions, i. e., maximum 40-hour work week and 40 cents an hour minimum wage.

Killeen on Florida Vacation

Mr. and Mrs. E. V. Killeen, and daughter Clare, are spending a month at Ormond Beach, Fla., where they are living at the Hotel Coquina. Mr. Killeen is president of George Lueders & Co., New York.

Engel Discusses Industrial Aromatics

Robert A. Engel, of the industrial aromatics division of Givaudan-Delawanna, Inc., New York, was the author of an article under the title of "Selling Over Buyer's Head" in the January 31 issue of *Printers' Ink*. In this discussion he tells how demand for "reodorized" products is built with the customers of prospects. Mr. Engel also indicates that the surveys of odor preferences and dislikes conducted through "The Givauanian" are being extended to the public through a general magazine.

Congratulating Mr. and Mrs. Barton

Congratulations are extended to Mr. and Mrs. Eugene C. Barton on the birth of a daughter on January 23. The new arrival in the Barton family weighed nine pounds at birth and has been christened Barbara Joan. Mr. Barton is vice-president and general manager of Compagnie Parento, Ltd., Toronto, Canadian affiliate of Compagnie Parento, Inc., Croton-on-Hudson, N. Y. Mrs. Barton is the former Miss Joanne Irene Diell, daughter of the late Mr. and Mrs. Samuel J. H. Diell, of Winnipeg, Man.

Marriage of Paul W. Hyatt

We have received an announcement of the marriage on February 1 of Paul W. Hyatt of Brooklyn, N. Y., to Miss Celeste Anne Eames. The bride is the daughter of Mr. and Mrs. Jacob John Straley of Buffalo and the ceremony took place in Christ Chapel, Trinity Episcopal Church in that city. Mr. Hyatt is associated with his father Frank S. Hyatt in the management of the Brass Goods Manufacturing Co., of Brooklyn. He is also well known in the sports world as a champion outboard motor boat racer. For some years he has been prominent in association work in the industry and has served several times as a member of the convention committee of the Associated Manufacturers of Toilet Articles.

PAUL W. HYATT

Muriel Co., in Larger Quarters

The Muriel Co., St. Paul, Minn., has moved into much larger quarters at 1399 University avenue. Its former address was 695 Selby avenue. Continued expansion of the company's business necessitated increased space and at the new address fine daylight quarters of 12,000 square feet floor space are available.

Parento to Offer Own Lines

Addington Doolittle, president of Compagnie Parento, Inc., Croton-on-Hudson, N. Y., and Compagnie Parento, Ltd., Toronto, Canada, who is now in Europe, has just advised us that he has appointed a representative in France to look after the interests of both companies.

ADDINGTON DOOLITTLE

Compagnie Parento will supply, in the future, absolute flower oils and other French oils under its own label. These will be manufactured in France in accordance with standards established by Parento. The same service will be given to the trade as in the past. Through Parento's own resources and connections abroad, it is now in a position to meet the requirements of the trade, in every respect.

Mr. Doolittle further advises that upon his return to the United States, the manufacturing facilities of the plant of Compagnie Parento, located in Croton-on-Hudson, N. Y., will be increased. He expects to sail on the *Washington* from Southampton, February 28.

Cosmetic Course at Wayne U.

The Wayne University College of Pharmacy will teach a course in cosmetics during the coming semester, starting in February, announced Dean Roland T. Lakey. The course will carry no college credit, but be a sort of extension course for those interested. No entrance requirements will be necessary. The class will be held twice a week at night. M. G. de Navarre, consulting chemist of Detroit will teach the course. Mr. Navarre is a graduate of Wayne University College of Pharmacy, class of 1930, at which time the college was known as the College of the City of Detroit. The course is called "Cosmetics, Ancient and Modern". It will deal with ingredients used in the manufacture of cosmetics and methods of using and selling these products. This preliminary course is expected to ultimately lead to a very technical course of advance cosmetic practice intended for the plant chemist.

Marriage of Donald C. Limbert

We have received an announcement of the marriage on January 26 of Donald C. Limbert of the J. N. Limbert Co., Philadelphia to Miss Ellen Broom, daughter of Mr. and Mrs. Arnott Richardson Broom of that city. The young couple will be at home after April 1 at the Wayne Manor Apartments, Germantown, Philadelphia.

Ross a Grandparent Again

George Ross, president of the Ross Co. and the Roelly Chemical Co., New York City, is receiving congratulations on the arrival of Richard Clark McLaughlin, second grandson, born January 15. Mr. Ross' son-in-law is known in the trade as a dermatologist.

New Quarters for Silver

The George Silver Import Co., New York, is now established at its new address, 351 Fourth avenue, where its quarters contain more than double the floor space available at the former address, 461 Fourth avenue. One side is given over to office and showroom space. The large private office of Albert Delavigne, president of the company, is at one end. Next to Mr. Delavigne's office is spacious and attractive general office room and adjoining this, the show room fitted with handsome cases in which a large array of raw materials and finished goods will be displayed.

Next to the show room is the office of Alvin E. Smith, sales manager. Directly adjoining Mr. Delavigne's office on the other side is the perfume laboratory which is under the direction of Gabriel Varvat, vice-president. Storage space also has been materially increased, one whole side of the ninth floor, on which the offices are located, being devoted to the storage of essential oils and aromatic chemicals. The shipping department is located in one section of this excellent storage room. The accompanying photographs show the perfume laboratory with Mr. Varvat at his desk and a section of the storage space at the new address.

The company has asked us to extend a cordial invitation to its many friends and customers to visit the new quarters.

Armstrong Changes Company Name

All Armstrong products formerly sold by the Armstrong Cork Co. and the Armstrong Cork & Insulation Co. will be distributed by a subsidiary company to be known as "Armstrong Cork Products Co.," according to an announcement issued at the executive offices of the company in Lancaster, Pa. The new arrangement became effective January 1.

It was emphasized that the change in the name of the sales organization does not in any way alter Armstrong's distribution policies or personnel. All corporate functions other than marketing will be continued under the name, Armstrong Cork Co., the announcement stated.

To Distribute Fries Flavors

Albert M. Hoffheimer, president of Alex. Fries & Bro., announces that henceforth Ross & Rowe, Inc., of New York, will be sole distributors for all flavors made by the Fries company. Quoting Dr. Harold Fries of New York, Mr. Hoffheimer said, "This radical change in the company's policy, which has been made, will give the customer the advantage of having trained technicians skilled in candy making at their disposal."

Ray Sales in New Quarters

Ray Sales Co., Inc., manufacturers and dealers in toilet preparations and drug store products, have moved to greatly enlarged space at 7 West 30th street, New York City, where an entire floor has been leased.

F. L. Butz Is Recuperating

We are very glad to report that F. L. Butz who is well known in the trade as a manufacturer's representative on paper boxes and tubes, has recovered from a serious illness. Mr. Butz reports that he expects to be back on the job in New York very soon and asks us to convey to his many friends in the trade his appreciation for their kindness during his illness.

Alsop Appoints Ohio Representative

Alsop Engineering Corp., New York, has appointed W. H. Lilly its Ohio representative. Mr. Lilly who has had a great deal of experience with liquid processing equipment will cover Frankfort, Louisville, Indianapolis and neighboring districts in addition to the general Ohio territory. His headquarters are located at 1903 Berkley avenue, Cincinnati.

New Officers of Wrigley

George S. Bross has been elected treasurer of the Wrigley Pharmaceutical Co., Atlantic City, N. J., manufacturer of tooth paste, and Archie T. Riggin has been named secretary. They succeed the late Robert P. Gallagher, who was secretary and treasurer of the company until his death.

Colgate Opens Jacksonville Office

The Colgate-Palmolive-Peet Co., Jersey City, has opened an office in the Hildebrandt building, Jacksonville, Fla., to handle its business in that territory.

Bottles and Caps Dutiable as Unit

An application by L. T. Piver, Inc., for a rehearing on a decision that glass bottles and metal caps are dutiable as an entirety rather than individually was denied last month by the United States Customs Court, First Division. The original decision, published last November, held that the bottles and caps were dutiable together at 75 per cent. ad valorem under paragraph 218 (e) of the Tariff Act of 1930, rather than the caps separately at 45 per cent. under paragraph 390, and the bottles, without the caps, at 75 per cent. Judge George Stewart Brown rendered a dissenting opinion.

Duty on Perfume Bottle Cartons

A protest by the Coty Processing Co., Inc., against a decision of the Collector of the Customs at the port of New York that perfume bottles and ornamental containers therefor are dutiable as an entirety rather than separately was overruled on January 21 by the United States Customs Court, First Division. James W. Bevans, counsel for the Coty organization, maintained that the bottles should have been assessed at 75 per cent under paragraph 218 of the Tariff Act of 1930 and the boxes at 20 per cent ad valorem plus 5 cents a pound under Paragraph 1405. The court held, however, that "there was, by the combination of these boxes and bottles, the creation of an article of commerce sold in the combined state" and that the collector was correct in classifying the merchandise as an entirety under Paragraph 218 (e) for duty at 75 per cent ad valorem.

Joseph Bates Gould

Joseph Bates Gould, formerly vice-president of Gabilla, Inc., New York, died last month at his home in Los Angeles. Mr. Gould, who suffered from a heart ailment, retired from active business in June, 1933, and moved his home to the suburbs of the Southern California metropolis.

THE LATE
JOSEPH B. GOULD

He was associated with the toilet preparations industry for many years. He served as head of Everett-Gould, Inc., New York, which was American agent for Les Parfumeries de Gabilla, Paris, until 1930 when that firm was reorganized as Gabilla, Inc., with Mr. Gould as vice-president. In all, he handled the distribution of the Gabilla line in this country for fourteen years.

Mr. Gould is survived by his wife.

Smith D. Pickett

Smith D. Pickett, former head of the Southern Bottler's Service Co., Atlanta, died January 27, in Orlando, Fla. He was 68 years old and a native of Dawson, Ga., where he was buried. He was known by bottlers throughout the South and was once connected with the NuGrape Co.

Alfred F. Burrows

Alfred F. Burrows, long prominent in the soap manufacturing industry and a member of the United States Shipping Board during the World War, died at Chicago on February 5. He was 59 years old.

In his first connection in the industry, Mr. Burrows served for many years with James S. Kirk & Co., Chicago, working his way up to director of sales promotion plans and general manager of the toilet soap department. Upon a reorganization of the Graham Brothers Soap Co., also of Chicago, in 1920, he joined that firm as vice-president and manager and three years later became president of the company.

THE LATE
ALFRED F. BURROWS

When the Graham Brothers Soap Co. was merged with the Remmers Soap Co., Cincinnati, under the name of the Remmers-Graham Co., Mr. Burrows became vice-president of the new concern. This organization in turn joined with the Beaver Soap Co., Dayton, as the Beaver-Remmers-Graham Co. in 1927, but a year later passed into receivership and was acquired by the Cincinnati Soap Co.

Douglas M. Scott

Douglas Montreville Scott, in charge of Ohio sales territory for Merck & Co., Inc., Rahway, N. J., died at Cleveland on January 17. Born in Port Richmond, Staten Island, he moved to Elizabeth, N. J., in early childhood with his parents, Mr. and Mrs. Frank Scott. In addition to his father and mother, he leaves his wife, two sisters and two brothers.

Fred C. Ward

Fred C. Ward, manager of industrial sales of the Colgate-Palmolive-Peet Co., Jersey City, N. J., died February 15. Mr. Ward joined the old Palmolive Co., in 1926 as manager of the industrial sales department and held this position through the mergers with Peet Bros. and Colgate & Co.

Christian Beilstein

Christian Beilstein, first vice-president of the Dodge & Olcott Co., New York, until his retirement in 1926, died February 10. He was 67 years old. After a brief service with Lazell, March & Gardiner, perfumers, he joined Dodge & Olcott in 1891, becoming secretary of the firm in 1905 and first vice-president in 1918.

Services were held February 18 from his home in Brooklyn, N. Y. He leaves his wife, Julia Bartruff Beilstein.

Mrs. J. L. Hopkins

Mrs. Rose L. Hopkins, wife of J. L. Hopkins, of J. L. Hopkins & Co., New York, died on February 8. We join his many friends in the trade in extending sympathy to Mr. Hopkins.

Chicago News Notes

THE Chicago Perfumery Soap and Extract Association is devoting considerable time at its monthly meetings to legislative matters in the interests of the manufacturers of toilet goods in the Chicago district. When the association was organized, the following was included in its constitution: "To promote legislation that will be beneficial, to prevent legislation likely to be injurious and to correct existing laws, the effect of which have proved detrimental to the general welfare of its members, and to co-operate with the national associations." The many manufacturers in Chicago have appreciated the hard work accomplished by the association, and the membership list is climbing rapidly as a result. Included among the manufacturers that have joined the association the past year are: Bree Cosmetics, Inc., Lucien Lelong, Inc., E. C. DeWitt & Co., Luxor, Ltd., Valentine Laboratories, Inc., Maynard, Inc., Frank Vleit Co., Inc., Spic, Inc., Geral Corp., Wm. J. Stange Co., Illinois Cosmetics Co., Thayer Pharmacal Co., La Playa Laboratories and Tattoo, Inc.

John S. Hall has again been retained as attorney for the association. He has had many years of active association with legal matters, both State and National, affecting the toilet goods business as well as the flavoring extract field. The list of committees for the year has been announced as follows:

Executive: J. H. Helfrich, chairman; Walter H. Jelly, W. Kedzie Teller, George Wrisley, Dudley F. Lum.

Legislative: George Wrisley, chairman; Will Lyon, T. E. Hanshaw, Donald Clark, Ray Burnham.

Membership: Dudley F. Lum, chairman; George A. Briggs, A. J. Anderson, Joseph DeLorme, George Woods.

Publicity: J. A. A. Scott, chairman; A. G. Smith, William H. Schutte, N. S. Kier, M. V. Pennal.

Entertainment: C. A. Hammond, and M. B. Vance, co-chairmen; Robert Holland, H. G. Larson, R. F. McClelland.

Golf: Walter H. Jelly, chairman; E. F. Smith, A. C. Drury, John Buslee, P. A. Rising.

Bowling: Paul Pettit, chairman; S. J. Vance, Ray Morris, Al. Burgh, C. A. Seguin.

Walter May Forms Own Organization

Walter N. May, for 11 years with the Walgreen Co., in supervision and merchandising capacities, and more recently advertising manager, has opened an office of his own at 110 South Dearborn street, where he will specialize as advertising and merchandising counselor to manufacturers in the drug and allied trades and to chain drug stores.

Bree Cosmetics in Larger Space

The Bree Cosmetics, Inc., having outgrown its quarters at 21 South Wabash avenue, has moved to 823 South Wabash avenue. The telephone number will be Harrison 1278.

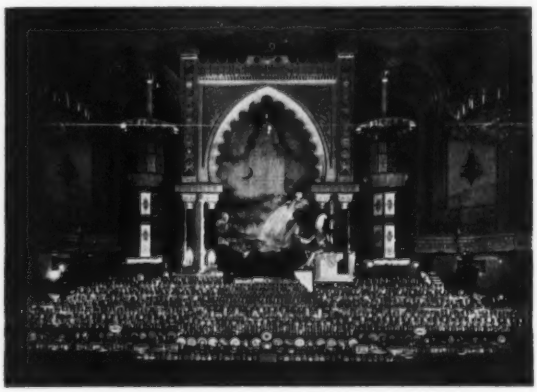
U.S.I. at New Address

The U. S. Industrial Alcohol Co. has moved its Chicago sales office to 3007 West 47th street, with telephone number LaFayette 5600.

Canners' Show Well Attended

Record crowds were present at the 28th annual convention of the National Canners Association, which was held in Chicago from January 14 to 18. The Canning Machinery and Supplies Association and other organizations affiliated with the industry conducted their own meetings during the course of the convention.

Among the displays that attracted particular attention was the elaborate arrangement of 8,000 lithographed containers by the American Can Co., New York, pictured below. The background portrayed the



word picture of the canning industry as an "Arabian Nights' garden," used by Edwin C. Hill recently when he introduced H. W. Phelps, president of the American Can Co., for a radio address.

Exhibitors at this year's convention included the American Can Co., New York; Anchor Cap & Closure Corp., Long Island City, N. Y.; Continental Can Co., New York; Crown Cork & Seal Co., Baltimore; Hazel-Atlas Glass Co., Wheeling, W. Va.; Karl Kiefer Machine Co., Cincinnati; Metal Package Corp., Baltimore; Owens-Illinois Glass Co., Toledo; Pfaudler Co., Rochester, N. Y., and U. S. Bottlers Machinery Co., Chicago.

Cabell Named Armour President

Robert H. Cabell, general manager of Armour & Co., Chicago, was elected president of the company at the annual meeting of directors on January 25. Frederick H. Prince was reelected chairman of the board, and James A. McDonough was named assistant to the chairman of the board. The position of general manager, which Mr. Cabell had held since last November, was abolished.

An executive committee of nine members of the board was created, and the finance committee was abolished. Mr. Prince was named chairman of the new committee, and its personnel includes the former members of the finance committee and Weymouth Kirkland.

"It is my belief," asserted Mr. Cabell in the course of his report to the annual stockholders' meeting, "that the country is emerging into a period of business recovery which may surpass anything we have experienced before." He later announced plans for an intensive sales drive during 1935.

DeLuxe Mascara Moves

The De Luxe Mascara Co., Inc., has moved into larger quarters and is now located at 4226 Lincoln avenue. Additional new machinery and equipment have been added to its new factory.

Westlake Touring Europe

E. G. Westlake, manager of the Marshall Field & Co., wholesale toilet goods and druggists' sundry department, left for an extended trip to Europe on February 11. Mr. Westlake will tour England, France, Italy, Germany, Czechoslavakia and Switzerland in search of new items and is not expected back in the States until about the middle of April. John Tracy, in charge of the retail perfume department, is accompanying Mr. Westlake and will make a special study of the foreign perfume trade.

Mrs. Edward W. Boehm

Mrs. Lillian Boehm, aged 43, wife of Edward W. Boehm, purchasing agent for the Paul F. Beich Candy Co., died of a heart attack on January 30. She leaves her husband and three children, Ruth, Edward, Jr. and William.

The Apple Flavor

(*Continued from Page 629*)

formulae, however, the American flavoring extract manufacturer is able to produce an article closely approximating in chemical composition to the natural oil.

The aroma of *iso*-amyl formate is certainly strident; but it tones down remarkably well when compounded with the other constituents of Power and Chestnut's formulae, and the compound is allowed to mature and suitably diluted. The *iso*-amyl caprylate may be omitted, if desired, though this plan is not recommended. Slight variations in the proportions of the constituents may be made to suit individual tastes, the rosy note being strengthened by increments in the proportions of geraniol and geranyl esters.

In any case, it needs to be emphasized that, to be appreciated, the essence must be tasted in a state of high dilution (e. g., 1 part in 10,000). A taste background in which acidity, sweetness, and slight astringency are nicely balanced is also desirable.

Although not detected as present in apples in these investigations, there are some other esters which have apple-like aromas. This is particularly the case with *iso*-amyl *iso*-valerate, which, by itself, is often known as apple oil. This substance has been and still is extensively used in the manufacture of artificial apple essence.

It has to be emphasized that the term "apple flavor" is a generic and not a specific one. The flavors of different varieties of apples, as is, indeed, true of most fruits which have been long and widely cultivated for dessert purposes, show marked individual differences, though retaining something in common with each other.

The perfumer who is bent on imitating the fragrance of the rose is not content if he succeeds merely in making a perfume which smells like roses. He aims at reproducing the fragrance of a particular type of rose. In an analogous manner, though his task is really a more difficult one, the flavoring essence manufacturer should aim at reproducing the flavor of a particular type of apple.

Iso-amyl *iso*-valerate produces a flavor of a somewhat softer and more banana-like character than that got by working along the lines of Power and Chestnut's formulae.

It may be compounded with the constituents of these formulae, or with such other esters as ethyl and *iso*-butyl *iso*-valerates, ethyl and *iso*-amyl acetates, ethyl butyrate, ethyl malonate and ethyl oenanthate. Clove oil, petitgrain oil, geranyl butyrate, citronellyl *iso*-valerate, and benzaldehyde have also been recommended for touching up the flavors of artificial apple essences. Chloroform and ethyl nitrite, included in some formulae, should not be used.

Some apples have a peculiar element in their flavors which has been likened to that of fennel. Examples are provided by Brownlee's Russet, Reinette Grise de St. Ogne, and the whole group of French "Fenouillets." Sweet fennel oil naturally suggests itself for the reproduction of this particular element; and, providing it is used with discretion, gives very satisfactory results.

There are apples whose flavors have been described as recalling strawberries or raspberries. Suitable additions for reproducing these varieties at once suggest themselves; but great care must be exercised so that the typical apple note is not completely lost.

Again, there are other apples whose flavors are of a musky character. Ambrette seed absolute enables this note to be very nicely reproduced; and the high cost of this very elegant natural product should not defer the manufacturer from employing it, as very little indeed is required for the purpose.

In short, with Power and Chestnut's formulae as bases on which to work, the flavoring extract chemist has a very interesting task before him. Having selected a good-flavored variety of apple, careful examination of its flavor and aroma should suggest aromatic materials for addition thereto, whose real suitability for the purpose can then be determined by experimental trials.

Circulars, Price Lists, etc.

Martha Matilda Harper, Inc., Rochester, N. Y.—*"7 Steps to Prosperity."*—This portfolio contains the company's complete advertising campaign for 1935, including newspaper advertisements, booth cards, counter displays and direct mailing pieces for the use of "Harper Method" shops.

* * * *

Schimmel & Co., Inc., New York.—*Price List, January, 1935.*—This price list is of particular interest as the first of its kind to be issued by the new American agency for Schimmel & Co., A. G., Miltitz near Leipzig, Germany, listing prices at which Schimmel's specialties can be purchased from this direct selling agency. It includes the complete range of essential oils, aromatic chemicals, flower oils, resinoids, liquor flavorings and fruit flavors for which the Schimmel organization is known.

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Merck & Co., Inc., Rahway, N. J.—*Industrial Chemicals Price List, January, 1935.*—The industrial chemicals of the company are listed, together with shipping information and latest prices, in this monthly catalogue.

Givaudan-Delawanna, Inc., New York.—*"The Givaudanian," January, 1935.*—Several interesting items appear in this issue, including a discussion of natural and synthetic ambergris and an abstract of Sébastien Sabetay's recent paper on research in perfume chemistry. "Governments May Change, But Business Must Go On" is the title of an editorial by Dr. Eric C. Kunz, executive vice-president, in which he urges business men to concentrate on their own affairs rather than to expect assistance from Washington.

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Magnus, Mabee & Reynard, Inc., New York.—*Price List and Catalogue, January-February, 1935.*—Current price quotations are given for the company's line of essential oils, aromatic chemicals and specialties. In addition, the company calls attention to a permanent exhibit of its products, maintained on the second floor of its building at 32 Cliff street, New York, and invites members of the trade to examine this display.

* * * *

Hové, New Orleans, La.—*Perfumes of New Orleans.*—Besides describing the company's line, this attractive mailing piece illustrates and gives the history of Hové's building at 529 rue Royale, New Orleans, built in 1785 by the Spanish Governor, Don Esteban Miro.

* * * *

Perfumery & Essential Oil Record, London, England.—*Year Book and Diary for 1935.*—Features of this year's edition of this annual publication are an index of applications for British trade marks, a ten-year price summary for essential oils and synthetics, a symposium on creams, notes on soap perfuming, and other discussions of interest to the manufacturer.

* * * *

Stokes & Smith Co., Philadelphia, Pa.—*"An Unusual Filler."*—Illustrations and operating descriptions of the "S & S Duplex" packer and weigher are presented. This machine is designed "for the intensive packing and accurate weighing of powders or granulars in packages up to 25 pounds."

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Commercial Solvents Corp., Terre Haute, Ind.—*"Alcohol Talks,"* February, 1935.—This discussion is entitled "The Grass That Is Cane" and presents the history of sugar cane and the production of alcohol from this medium through modern chemistry.

* * * *

Procter & Gamble Co., Cincinnati.—*"What Does Procter & Gamble Make?"*—The company's products "can be roughly classified as soaps, cooking fats and oils, glycerine and related products, animal feed, and paper pulp," says this leaflet, which describes each of the principal items in the P. & G. soap line. However, the firm's products are also used in the manufacture of such "surprising things" as silk stockings, fine paper, dynamite, soft drinks, anti-toxin and artificial flowers."

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Fritzsche Brothers, Inc., New York.—*Wholesale Price List, February, 1935.*—"We respectfully call the attention of our friends to this considerably enlarged issue of our wholesale price list. There have been added a great number of the specialities never before listed but which have been found through years of practical application to possess outstanding value."

Book Reviews

For the Importer

CUSTOM HOUSE GUIDE, AN IMPORTERS' ENCYCLOPEDIA. 1935 Edition. 1,500 pages. The Custom House Guide, New York. 1935. Price, $10.

Since its institution in 1862, this manual has been indispensible to traders in foreign merchandise. An appreciable amount of new information has been incorporated into the 1935 edition, including such valuable documentary materials as the Cuban Reciprocal Trade Agreement, the Reciprocal Tariff Bill, Revenue Act of 1934, Section 3(e) of the National Industrial Recovery Act, compensatory taxes on imports in the Agricultural Adjustment Act, the Anti-Dumping Act and special taxes affecting imports.

The alphabetical commodity index has been completely revised and shows the new rates of duty covered by the President's proclamations and trade agreements, new classification numbers and units of quantity, as provided for in Import Schedule "A." New port sections have been created for Puerto Rico and the Virgin Islands in the book and a larger number of revisions and additions than usual have been included in other port sections, particularly with respect to custom house brokers, U. S. Customs bonded warehouses and steamship services.

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Another Formulary

THE CHEMICAL FORMULARY, Vol. II, edited by H. Bennett and a group of chemists and consultants. 570 Pages. D. Van Nostrand Co., New York. 1935. Price, $6.00.

To paraphrase a proverb, "Of the making of formularies there is no end." It seems to this reviewer that there are already too many formularies on the market, but that is a matter for the publishers to decide.

The second volume of the Bennett formulary contains entirely new material not included in the first work. It contains many formulae of undoubted value and a good many which will not be of much use excepting to a very limited number of readers. It is a better book than the first volume, although even the editors' ingenious explanation cannot remove the disadvantages of the use of trade names instead of chemical designations for a great variety of materials mentioned in the work.

It is true that many commercial formulae contain trade names and that they are being used in industry. It is also true that the user of such a formula places his product in the hands of the single supplier of that particular raw material. If he does so deliberately, it is his own fault. If he is led to do so through use of a supposedly scientific "formulary," that seems to us quite another matter.

Those of the cosmetic and flavoring formulae in this work which do not contain trade names are recommended. Without long research, it would be impossible to pronounce them perfect, but inspection show no errors or obviously unworkable recipes. Those that contain trade names can be avoided by the discriminat-

ing reader. These sections of the book are likely to be quite useful.

There might be raised the question as to whether the inclusion of certain of the pharmaceutical formulae is proper in a work which is to be circulated indiscriminately. However, there is at least one physician on the board of editors and if he has no scruples, it is not for this reviewer to raise them.

The book is well bound in style similar to that of the first volume and type and printing are excellent considering the large volume of material appearing within its covers.

S. L. M.

New Incorporations

B. & M. Products, Inc., Centralia, Wash., soaps, cleaners; $50,000. Incorporators: E. G. Leach, Lester Main and John Rank.

Barrett-Mueller Co., Inc., 11 East 36th street, New York, cosmetics; $2,100. Incorporators: Robert B. Barrett, 3006 Arlington avenue, New York; Wilbert J. Mueller, 2475 Palisade avenue, New York; William H. Cherry, 54 Grand avenue, Ridgefield Park, N. J. Filed by Samuel F. Reynolds, 500 Melrose avenue, New York.

Bote Laboratories, Inc., New York, hair dressing supplies; $20,000. Filed by Seymour W. Finkelstein, 470 Seventh avenue, New York.

Charms of the Orient, Inc., New York, perfumes, cosmetics; 100 shares of no par value stock. Incorporators: Julius Orelowitz, 974 Sheridan avenue, New York; Max Neidle, 2933 West 22nd street, Brooklyn, N. Y.; Catherine Guiffre, 2018 Muliner avenue, New York. Filed by Neidle & Taylor, 522 Fifth avenue, New York.

Dango Corp., 11 West 42nd street, New York, toilet preparations; 100 shares of no par value stock. Filed by James L. Murphy, 27 William street, New York.

Economy Cosmetics & Drugs, Inc., Brooklyn, N. Y., cosmetics, drugs; $10,000. Incorporators: Robert Gitlin, 675 Greene avenue, Brooklyn, N. Y.; Peter Zambuto, 831 Madison street, Brooklyn, N. Y.; Rose Gross, 243 Penn street, Brooklyn, N. Y. Filed by Simeon F. Gross, 277 Broadway, New York.

Ey-Teb Fifth Avenue Corp., New York, beauty supplies, realty; $20,000. Filed by Carl Schaeffer, 1427 Broadway, New York.

Equitable Merchandising Corp., New York, cosmetics; 200 shares of no par value stock. Incorporators: Arthur A. J. Weglein, 310 East 44th street, New York; Theodore Bayer, 47 St. Mark's place, New York; Dorothy Nathan, 116a Patchen avenue, Brooklyn, N. Y. Filed by Arthur A. J. Weglein, 295 Madison avenue, New York.

Midwest Laboratories, Inc., 114 Catalpa drive, Royal Oaks, Mich., soap; $25,000.

Parmalo, Inc., New York, cosmetics; 200 shares of no par value stock. Incorporators: Louis Farme, 72 Overlook road, New Rochelle, N. Y.; Ellen P. Lockwood, 1 Sheridan square, New York; Elizabeth M. Maher, 785 Madison avenue, New York. Filed by Good & Kent, 44 Court street, Brooklyn, N. Y.

Picciano Brothers, Inc., 136 Maple avenue, Croton-on-Hudson, N. Y., perfume raw materials. D. E. Picciano, president.

Renaud Paris 1817, Inc., New York, cosmetics; $15,000. Filed by M. Rackow, Spring Valley, N. Y.

Mary Scott Rowland, Ltd., Wilmington, Del., cosmetics, soaps; 4,100 shares of no par value stock. (The Corporation Trust Co., Dover, Del.)

Southland Chemicals, Inc., Nashville, Tenn., alkali, soaps, pharmaceuticals, disinfectants. Officers: G. P. Blair, president; O. L. McMahan, vice-president; G. M. Smith, secretary; J. M. Cate, treasurer.

Florey Sales Corp., New York, cosmetics; $20,000. Incorporators: James McHale, 201 West 101st street, New York; Ines Gregory, 1150 Intervale avenue, New York; Mildred C. Marcone, 50 Union avenue, Brooklyn, N. Y. Filed by Mildred C. Marcone.

Remey Toiletries, Inc., New York, cosmetics; 200 shares of no par value stock. Incorporators: Isaac Meyer, 166 Beach 126th street, Rockaway Park, N. Y.; Mary E. Gorman, 510 Atlantic avenue, Brooklyn, N. Y.; John Van Valkenburgh, 42 Broadway, New York. Filed by Cohalan & Cohalan, 42 Broadway, New York.

Special Toiletries Corp., New York, cosmetics; $20,000. Incorporators: Winfred L. Schmidt, 50-05 43rd avenue, Sunnyside, N. Y.; James McHale, 201 West 101st street, New York; Ruth Abrams, 115 McClellan street, New York. Filed by Jay H. Schmidt, 133 East 16th street, New York.

Tanya, Inc., New York, toilet supplies and accessories; $4,000. Filed by Prentice Hall, Inc., 90 Broadstreet, New York.

Tryon, Inc., Long Ridge road, Danbury, Conn., toilet preparations. Incorporators: Virginia V. Tryon, William J. McWilliams.

Business Records

Reorganization Proceedings

Stein Cosmetics, Inc., 51 Madison avenue, until recently, now 430 Broome street, New York. Voluntary proceeding to effect a reorganization under Section 77b of the Bankruptcy Law. The petition lists a claim of $972,264 against Frank J. Stolz, former president, and all stock of M. Stein Cosmetics Co., Inc., as assets. Liabilities are shown to be $220,000 in debentures, and $50,000 owing to merchandise creditors and a contingent liability of $107,000.

M. Stein Cosmetics Co., Inc., 430 Broome street, New York. Voluntary proceedings to effect a reorganization under section 77b of the Bankruptcy Law. No assets or liabilities are shown in the petition which was filed with that of the parent company.

Assignments

Mary Lou, Inc., cosmetics, at 119 W. 25th street, New York, has assigned to Abraham R. Grossman, 276 Fifth avenue, and Henry Rubin, 302 Broadway.

Brooklyn Perfume Syndicate Co., Inc., cosmetics and perfumes, 131 Montague street, Brooklyn, assigned to Louis Markowitz, 164 Linden blvd., Brooklyn.

"One Hundred Per Cent"

Lint & Rhines

Your publication is 100 per cent satisfactory; subscription remittance will be forwarded.

Canadian News and Notes

DESPITE many efforts put forward by the Association of Canadian Perfumers and Manufacturers of Toilet Articles, no definite or favorable decision on the excise tax has come from Ottawa. This was learned from Gerald Johnson, vice-president of the association at a recent meeting held in the Royal York hotel, Toronto.

Mr. Johnson indicated, however, that the committee has been working very hard, and if definite action is not soon forthcoming, they will again wait on Honorable Mr. Rhodes at Ottawa. At the meeting past president John R. Kennedy was in the chair, and he had at the head table with him Frank Dowset, advertising manager of the Gutta Percha and Rubber Co., who was special speaker. Brief addresses were given by Dr. Stanbury and Mr. Hanham, the former stating that the government usually selects the drug trade when looking around for taxation victims. Dr. Stanbury claimed that the excise tax was absolutely outrageous.

A pleasing feature of the meeting was the presence of Miss Katherine Young and Wishart Campbell, well known radio starts, who gave several selections.

The subject of Mr. Dowset's address was "The Fun and Pitfalls of Radio Advertising" in which he explained the inner workings of radio with which he has had wide experience. His address was one of the most interesting ever given before the Association, and he mentioned several outstanding radio programmes which have been big successes in his opinion.

Wampole and Jergens Men Meet

The coast-to-coast travellers of H. K. Wampole & Co. and Andrew Jergens Co. were in conference at Perth, Ont., early in January with the heads of the firms. Among the Jergens men present were Messrs. Fred Adams, Toronto, A. W. Bisson, Vancouver, B.C., R. E. Macdonald, Winnipeg, W. B. Bell, Hamilton, F. C. Hanna, Ottawa, W. Dyson, Montreal, and C. J. Macdonald, Halifax.

New Lehn & Fink Items

Lehn & Fink, Canada, Ltd., have announced two new products to the Canadian drug trade. The new "Pebecco" tooth paste, which contains milk of magnesia, is now available at jobbers and wholesalers. The new tooth paste contains two other important ingredients—a new antiseptic and deodorant, and a new whitening agent. The new product is being attractively tubed and packaged in a manner which lends itself admirably to effective display.

Squibb Pushes Ad. Campaign

A strong advertising campaign is being put on during 1935 by E. R. Squibb & Sons of Canada with a view to enabling druggists to link up with the advertising in such a way that all will benefit greatly. The campaign is designed to permit the druggists to take fullest advantage of it and greatly increase their sales of Squibb products. John A. Huston, managing director of E. R. Squibb & Sons of Canada, is very optimistic over the year's plans.

Renaud in New Quarters

Renaud et Cie. of Canada has announced its removal to larger quarters at 208 King street, West Toronto. The company is sales agent for "Hush" cream deodorant, "Hush" stick deodorant, "Hush" liquid deodorant, and several other products.

McGillivray Enlarges Sales Space

McGillivray Brothers, Ltd. have enlarged their premises at Yardley House, Toronto, to include all the third floor to house the sales part of the business. Owing to accepting additional agencies, considerably more packing and routine is necessary on their lines, hence the company found it essential that they have more space at their disposal.

T. A. McGILLIVRAY

T. A. McGillivray, president of the company, says that, while it was hard to maintain sales for the first six months, a very considerable improvement was noted in the last six months of 1934, and the year finished with some substantial increases in all the lines handled by the company.

Sloan Finds Improved Business

Gordon Sloan, general sales manager of Colgate-Palmolive-Peet Co., Ltd., when recently interviewed said, "We are more than satisfied with the support we have received from the drug trade during 1934." He had then returned after holding a series of salesmen's meetings in principal Canadian cities.

Mr. Sloan pointed out that early in 1934 the company had realized that, no matter how well known their product was, it could not hope to obtain maximum sales without the druggist's support. Further, it was realized that no druggist would support an article from which he could not make a profit. The problem was to find a scale of prices high enough to allow the druggist to make a fair profit, yet low enough to be attractive to the general public.

How the problem was solved after a great deal of work, Mr. Sloan explained. The company had flatly refused to lower or alter its formulas in any way to produce inferior products. It was definitely decided that the high standard quality must be maintained. Nevertheless, the company was able to arrive at prices satisfactory alike to the general public and the retail drug trade, on whose support it depended so much for its success.

In 1935 the Colgate-Palmolive-Peet Co. will retain this plan of stabilized prices and guaranteed profits. Extensive advertising is planned to appear in daily papers, national magazines, and farm papers. Close drug-store co-operation will be sought as usual.

Association Bowlers Are Active

Members of the Association of Canadian Perfumers and Manufacturers of Toilet Articles are well under way in their bowling season, with unusual interest being displayed in the competition. There are ten teams in the bowling league of the association, each team having six men, and matches are conducted every two weeks.

The present standing of the teams follows:

	Team	*Won*	*Lost*	*Total Pins*	*Points*
1.	Itchycrew	16	5	7	23
2.	Standouts	16	5	5	21
3.	Wildmen	13	8	4	17
4.	Jonahs	10	11	4	14
5.	Hardnuts	10	11	4	14
6.	Alckyhounds	10	11	3	13
7.	Honeyrollers	11	10	2	13
8.	Blowers	9	12	3	12
9.	Donaldas	5	16	2	7
10.	Easymarks	5	16	1	6

Players with the highest averages are:

	Name	*Average*	*Games played*
1.	Lea Johnston	224	18
2.	Bill Ford	222	21
3.	Tom Bell	218	14
4.	A. Newton	213	9
5.	S. Dyer	209	24
6.	H. Howe	204	18
7.	R. W. Dixon	204	24
8.	C. Butler	203	18
9.	H. Trowsdale	202	17
10.	A. Taylor	201	24
11.	A. B. Burns	200	24

Canadian Convention Date Set

The annual convention of the Association of Canadian Perfumers and Manufacturers of Toilet Articles will be held this year on June 2, 3 and 4. The place selected is the same as that of last year's meeting, the Seignory Club, Lucerne, Quebec. Several important matters, affecting both the Canadian and United States manufacturers will be considered and it is hoped that as many representatives of companies in the United States will be present as is possible. There will be no conflict this year between the Canadian convention and that of the A. M. T. A. as unfortunately was the case last year.

More Advertising for Phillips

An extensive advertising campaign has been announced by Charles H. Phillips Chemical Co. here, makers of "Phillips' Milk of Magnesia," "Phillips' Dental Magnesia," and other products. Approximately fifty daily newspapers will carry the company's advertising during the month of February, while daily broadcasts over Toronto radio stations will provide another strong support to the retail drug trade handling the Phillips' line. In addition, numerous window and counter displays are available, upon request from dealers.

(*Continued on Page 653*)

Canadian Patents and Trade Marks

THE increasing international trade relations between the United States and Canada emphasize the importance of proper patent and trade mark protection in both of these countries in order that the expansion of business may not be curtailed by legal difficulties.

For the information of our readers, we are maintaining a department devoted to patents and trade marks in Canada relating to the industries represented by our publication.

This report is compiled from the official records in the Canadian Patent Office.

All inquiries relating to patents, trade marks, designs, registrations, copyrights, etc., should be addressed to

PATENT AND TRADE MARK DEPARTMENT
Perfumer Publishing Co., 432 Fourth Ave., New York.

TRADE MARKS UNDER UNFAIR COMPETITION ACT OF 1932

Design: The border usually constituting a side wall in overlapping scallops delicately shaded, and a fancy design of a woman's head set on a delicately shaped background, corresponding with the border. Toilet preparations. Parfumerie L. T. Piver, Ltée., Montreal, Que.

Design: A label having a rectangular, fanciful border; in the center thereof is an artistic and distinctive representation of a woman with long hair, looking into a mirror which she holds in her right hand and a small brush in her left hand; above, below and at each side of said representation is reading matter. Hair dyes. Mrs. Blanche Emilie Paule Bernon, trading as the Shadeine Co., London, W.2, England.

"Liette." Toilet preparations. Romeo Parent, B. Ph., trading as La Cie. des Produits Familex Engr., Montreal, Que.

Design: A panel, a vertical stripe and a horizontal stripe intersecting near a corner thereof, both stripes offsetting at the intersection. Both vertical and horizontal stripes are divided by thin longitudinally extending lines. The color scheme is red, white and blue, the panel being red, the stripes white, the longitudinal lines in them red, and the rectangle in the intersection blue. Reading matter in blue and white occurs in the larger sections defined by the intersecting stripes. Flavoring extracts. Jones-Schofield-Hatheway, Ltd., St. John, N. B.

"Bathodomes." Soaps. H. Bronnley & Co., Ltd., Warpleway, Uxbridge road, London, W., England.

"Smart Set." Toilet preparations. Arthur I. Stevens, Riberside, Ont.

"Nu-Way." Shaving cream. The Ovelmo Co., Fort Wayne, Ind.

"Duratone." Detergent for washing textiles. Duratone, Inc., Cincinnati, O.

"Ingram's." Toilet preparations. Bristol-Myers Co., New York.

"Double-Quick." Tooth paste. Western Bottle Manufacturing Co., Chicago, Ill.

"Athlex," "Little Theatre." Toilet preparations. National-Drugs, Ltd., Winnipeg, Man.

"M'Sage." Toilet preparations and soap. David Hugh Bottrill, Toronto, Ont.

Design: (a) A hexagonal label with a head and letter-press, (b) a hexagonal label with small hexagonal figures thereon, (c) a hexagonal label having a dark borderline and a shaded wedge-shaped background in the center part thereof, (d) the representation of a head of a woman with her hands massaging her face. Toilet preparations and soap. David Hugh Bottrill, Toronto, Ont.

Patents

347,628. Dispensing bottle. Samuel Wells Greenwood, Regina, Sask.

347,873. Nail polish package. Glazo, Ltd., Montreal, Que., assignee of Preston W. Marshburn, New York.

Design

Design for a jar, the dominant features of which are a panelled jar, horizontal ridges on a pair of opposite panels, and the slight inward taper of the jar toward the top thereof. Capstan Glass Co., Connellsville, Pa.

Patent and Trade Mark Department

Conducted by HOWARD S. NEIMAN

THIS department is conducted under the general supervision of Howard S. Neiman, contributing editor on patents and trade marks. This report of patents, trade marks, designs is compiled from the official records of the Patent Office in Washington, D. C. We include everything relating to the four co-ordinate branches of the essential oil industry, viz.: Perfumes, Soaps, Flavoring Extracts and Toilet Preparations.

Of the trade marks listed those whose numbers are preceded by the letter "M" have been granted registrations under the Act of March 19, 1920. The remainder are those applied for under Act of February 20, 1905, and which have been passed to publication.

Inventions patented are designated by the letter "D."

International trade marks granted registration are designated by letter "G."

All inquiries relating to patents, trade marks, designs, registrations, copyrights, etc., should be addressed to

PATENT AND TRADE MARK DEPARTMENT
Perfumer Publishing Co., 432 Fourth Avenue
New York City

Trade Mark Registration Applied for (Act of Feb. 20, 1905)

These registrations are subject to opposition within thirty days after their publication in the Official Gazette of the United States Patent Office. It is therefore suggested that our Patent and Trade Mark Department be consulted relative to the possibility of an opposition proceeding.

337,125.—"Odorine." Edward C. Miller, Denver, Col. (Oct. 5, 1931.)—Body deodorant.

349,530.—"Dimitry." Dimitry, Inc., New York. (Nov. 1, 1931.)—Toilet preparations.

352,367.—"Nopara." Albert Bertram Curtis, London, England. (Apr. 11, 1934.)—Hair preparations.

353,127.—"Gertos." Gert & Co., Vienna, Austria. (Aug. 22, 1933.)—Essences for flavoring food.

354,034.—"Junonia." French Perfumed Products, Inc., Wilmington, Del. (Apr. 16, 1934.)—Toilet preparations.

356,938.—"Jomar." Joseph A. Bergeron, doing business as the Diamond Laboratories, Meriden, Conn. (Aug. 1, 1934.)—Hygienic mouth wash.

357,328.—"Rume-Go." Sarah Perloff, doing business as the Blue Ridge Distributing Co., Philadelphia, Pa. (Mar., 1933.)—Bath salt.

357,341.—"I-Shine." Lenore Lynard, Pasadena, Cal. (Oct. 13, 1934.)—Eye drops.

357,947.—"Magna-View." Elmo Sales Corp., Philadelphia, Pa. (Aug., 1934.)—Machines for analyzing skin textures.

357,961.—"Pacquins." Pacquin, Inc., New York. (Dec. 17, 1920.)—Toilet creams.

357,966.—"Seba Gland." Albert Thierer, New York. (Oct., 1933.)—Toilet and medicated soaps.

358,066.—"Tips." Prouty-Bowler Soap Co., Des Moines, Ia. (Sept. 1, 1934.)—Shredded laundry soap.

358,139.—"Soapy Quintuplets." Kerk Guild, Inc., Utica, N. Y. (Oct. 29, 1934.)—Soaps and novelty soap cakes.

358,215, 358,216.—"Capitol." Paul Peter Mülhens, doing business as Eau de Cologne- & Parfümerie-Fabrik "Glockengasse No. 4711" gegenüber der Pferdepost von Ferd. Mülhens, Cologne, Germany. (Jan. 17, 1898.)—Toilet and shaving soaps and toilet preparations, respectively.

358,263.—"Borene." Mount Hood Soap Co., Inc., Portland, Ore. (Oct. 3, 1934.)—Borax soap.

358,287, 358,730.—"Peti Pat." Guy T. Gibson, Inc., New York. (Sept. 7, 1934.)—Perfume and perfume bottle containers, respectively.

358,422.—"Madame Borova." Beatrice Rosenman, doing business as Madame Borova, Detroit, Mich. (Oct. 23, 1934.)—Toilet preparations.

358,438.—"Kessco." Kessler Chemical Corp., New York. (1924.)—Acetone, ethyl acetate, etc.

358,456, 358,457.—"Stanco." Stanco, Inc., New York. (Apr. 9, 1928.)—Detergents for laundering operations and mineral oils, respectively.

358,459.—"Tetrasin." Louis Szigeti, Cleveland, O. (Oct. 24, 1934.)—Hair tonic.

358,472.—"Calvus." Cleo Laboratories, Inc., New York. (June 1, 1934.)—Depilatories.

358,553.—"Opening Night." Lucien Lelong, Inc., Chicago, Ill. (Sept. 26, 1934.)—Perfumes.

358,699.—"Pro-Ker." Pro-Ker Laboratories, Inc., New York. (June 28, 1934.)—Hair preparations.

358,796.—"Viviny Velvex." Viviny Perfumers, West Haven, Conn. (May 5, 1933.)—Toilet preparations.

358,821.—"Petrolife." Tripoli Barbers' Supply Co., Inc., Philadelphia, Pa. (Jan. 15, 1934.)—Hair dressing preparation.

358,832, 358,833.—"Cope's." Cope's Products, Inc., Philadelphia, Pa. (Nov. 5, 1934.)—Foot powders and creams.

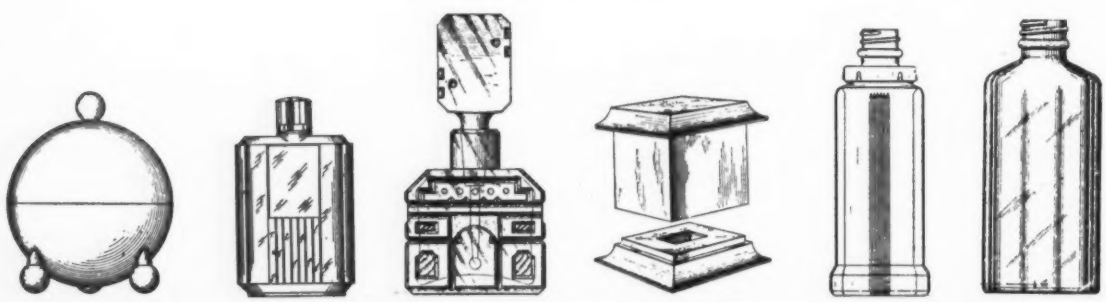
358,919, 359,344.—"Eclipse," "Continentale," respectively. Coty, Inc., Wilmington, Del. (Nov. 20, 1934; Dec. 3, 1934) respectively.—Lipsticks.

359,031.—"Dermalot." Nathan Eisen, doing business as Dermalot Co., New York. (June 29, 1934.)—Skin lotion.

359,045.—"Turf." Lenthéric, Inc., New York. (Nov. 30, 1934.)—Perfumes.

359,138.—"Norsec." The Norsec Co., Jersey City, N. J. (Nov. 9, 1934.)—Tooth paste.

Patents and Trade Marks



D 94,364 D 94,397 D 94,398 D 94,473 D 94,496 D 94,498

359,210.—"Corenco." Consolidated Rendering Co., Boston, Mass. (July, 1920.)—Soap and tallow for soap making.

359,228.—"Kal-Pheno." Kal-Pheno Chemical Co., Philadelphia, Pa. (Aug. 31, 1907.)—Tooth paste.

359,329.—"Thiosept." Thiosept Gesellschaft mit Beschränkter Haftung, Vienna, Austria. (1924.)—Soaps.

Trade Mark Registration Granted (Act of March 19, 1920)

These registrations are not subject to opposition:

M321,680.—"Rossville Certified Grain." Rossville Commercial Alcohol Corp., assignor to Commercial Solvents Corp., both of New York. (July 25, 1933. Serial No. 349,994.)—Grain alcohols.

Patents Granted

Consideration of space prevents our publishing numerous claims and specifications connected with these patents. Those interested can secure copies of patents by ordering them by number at 10c each from Commissioner of Patents, Washington, D. C.

1,987,869. Closure Cap. Howard F. Reichenbach, assignor to the Chase Companies, Inc., both of Waterbury, Conn.

1,988,088. Cosmetic container. Louis Philippe, New York.

1,988,141. Sachet. Maurice Albert Schaller, Paris, France, assignor to Guy T. Gibson, Inc., New York.

1,988,383. Closure for receptacles. Henry Hermani, assignor to the Tin Decorating Co., both of Baltimore, Md.

1,988,410. Powder sifter. Arthur Bates, assignor to the Evans Case Co., both of North Attleboro, Mass.

1,988,661, 1,988,852. Closures for containers. Thomas W. Miller, assignor to the Faultless Rubber Co., both of Ashland, O.

1,988,771. Bottle capper. Charles M. Anderson, Kenosha, Wis.

1,988,962. Metal container. Charles Alfred Racine and William Dalton Graham, both of Newmarket, Ont.

1,989,031. Collapsible tube closure and method of forming the same. Charles J. Westin, assignor to the F. J. Stokes Machine Co., both of Philadelphia, Pa.

1,989,145. Cap for collapsible tubes. Neal D. Newby, Woodridge, N. J.

1,989,155. Compact or vanity case. George Rosenberg, New Rochelle, N. Y.

1,989,218. Closure. Charles M. Villanyi, Bayside, N. Y., assignor to L. Mundet & Son, Inc., New York.

1,989,738. Liquid dispensing apparatus. Paul A. Carson, Mount Lebanon, Pa.

1,990,031. Lipstick container. Andre Janer, Flushing, N. Y., assignor to the A. J. & K. Co., Inc., New York.

1,990,195. Vanity case. Helen Marion Methven, Edgware, England.

Designs Patented

94,364. Design for a container for toilet goods. Arthur B. Schneider, Chicago, Ill.

94,397. Design for a bottle. René Tricard, Paris, France, assignor to Lenthéric, Inc., New York.

94,398. Design for a bottle. Edward G. Westlake, assignor to Marshall Field & Co., both of Chicago, Ill.

94,473. Design for a combined stand and cover for a bottle of perfume. Paul H. Ganz, assignor to D. Lisner & Co., both of New York.

94,496. Design for a glass bottle. Lawrence J. Kihn, assignor to the J. T. & A. Hamilton Co., both of Pittsburgh, Pa.

94,498. Design for a bottle. Walter R. Leach, assignor to the Carr-Lowrey Glass Co., both of Baltimore, Md.

Canadian News and Notes

(*Continued from Page 651*)

Cosmetic Output Down in 1933

Production of toilet preparations in Canada in 1933 was valued at $5,912,000, or about $1,000,000 less than in 1932. Output of tooth paste and powders amounted to $1,282,000. Ontario produced more than half of the total output, Quebec coming second with less than half the production that was registered by Ontario.

National Drug Sales Convention

A keynote of optimism was founded at the Annual Sales Convention of the National Drug & Chemical Co.'s Ontario Branches held at London, Ont., January 5. Head office executives from Montreal, numerous department managers from Toronto and London divisions, and a large number of salesmen were present, and all expressed confidence that the outlook for 1935 was brighter than for several years.

Among those present who spoke and took part in discussion were C. H. Lander, general manager; Gordon A. Slemin, general sales manager; R. M. Graham, Toronto manager; Duncan Longmire, sundries department manager, and many others.

Among the well known executives who attended the Convention and who spoke at the business session and the banquet were A. J. Johnson, sales manager for Canada of Weco Products Co. and Harry Garlick, sales manager for the Wildroot Co.

P. N. Soden, general manager of Pearson's Antiseptic Company of Canada, and President of P. N. Soden Company Limited, and associated firms, was also one of the speakers.

Hamilton Bowlers Take Trophy

Hamilton bowlers showed up to good advantage in the recent meeting between the druggist bowlers of Hamilton and the travellers of Toronto held in Toronto last month. The bowlers from the "Ambitious City" carried off the Valmont Trophy.

Walder Parke

Walder Parke, founder and president of Parke & Parke Co., Hamilton druggists, and one of the oldest graduates of the Ontario College of Pharmacy, died at his home in Hamilton January 21 in his eightieth year. For twenty-three years Mr. Parke was a member of the Board of Education, and had resided in this city for sixty-two years, starting the firm which bears his name more than forty years ago. The store ultimately grew to be one of Canada's largest independently owned pharmacies.

Mr. Parke was born on a farm near Caledonia, and received his early education in the county schools, Haldimand and Caledonia High Schools. He graduated from the Ontario College of Pharmacy and commenced working in Hamilton as an apprentice to George Magann at No. 1 Market Square.

Mr. Parke leaves three sons:—Harold, vice-president and general manager of Parke & Parke, Ltd., Harry, secretary of the firm, and Charles, of Cleveland, Ohio.

Norman N. Edelberg

Norman N. Edelberg, president of Perfumes Limited, Montreal, died January 23 at the age of twenty-eight. Mr. Edelberg was very well known throughout the trade in Canada and especially in his home city. He leaves a widow and one son.

Wouldn't Miss One Issue

Janay Facial Products Corp.

We do not want to be without your very valuable journal, nor to miss one issue.

Prices in the New York Market

(Quotations on these pages are those made by local dealers, but are subject to revision without notice)

ESSENTIAL OILS

Almond Bit., per lb.	$2.20@	$2.40
S. P. A.	2.50@	2.75
Sweet True	.65@	.70
Apricot Kernel	.28@	.32
Amber, crude	.24@	.30
rectified	.50@	.60
Ambrette, oz.	46.00@	
Amyris balsamifera.	3.00@	3.25
Angelica root	50.00@	60.00
seed	65.00@	80.00
Anise, U. S. P.	.46@	.52
Araucaria	1.75@	1.85
Aspic (spike) Span.	1.35@	
French	1.55@	
Balsam, Peru	5.75@	6.25
Balsam, Tolu, oz.	4.25@	
Basil (oz.)	2.35@	
Bay	1.65@	2.00
Bergamot	1.65@	2.00
Birch, sweet N. C.	1.50@	1.75
Penn. and Conn.	2.15@	3.00
Birchtar, crude	.15@	
Birchtar, rectified	.75@	
Bois de Rose	1.40@	3.00
Cade, U. S. P.	.30@	.33
Cajeput	.55@	
Calamus	3.50@	
Camphor "white"	.26@	.30
Cananga, Java native	2.80@	3.25
rectified	3.15@	3.50
Caraway	2.00@	
Cardamon, Ceylon	14.00@	25.00
Cascarilla	60.00@	
Cassia, 80@85 p.c.	1.05@	
rectified, U. S. P.	1.35@	1.50
Cedar leaf	.65@	.70
Cedar wood	.28@	.32
Cedrat	4.15@	
Celery	15.00@	
Chamomile (oz.)	3.00@	7.00
Cherry laurel	12.00@	
Cinnamon, Ceylon	12.00@	20.00
Cinnamon, Leaf	2.25@	
Citronella, Ceylon	.35@	.40
Java	.40@	.46
Cloves Zanzibar	.95@	1.07
Cognac	18.00@	21.00
Copaiba	.57@	.62
Coriander	3.60@	
Croton	1.50@	1.70
Cubebs	3.00@	
Cumin	8.25@	
Curacoa peels	5.25@	
Curcuma	3.00@	
Cypress	12.00@	
Dillseed	3.60@	4.25
Elemi	1.45@	
Erigeron	1.30@	1.60
Estragon	38.00@	
Eucalyptus	.33@	.36
Fennel, Sweet	1.25@	1.45
Galbanum	26.00@	
Galangal	24.00@	
Geranium, Rose		
Algerian	5.00@	7.50
Bourbon	4.60@	6.00
Spanish	16.00@	
Turkish	2.10@	2.25
Ginger	3.40@	3.75
Gingergrass	3.25@	4.10
Grape Fruit	3.00@	
Conc.	24.00@	
Guaiac (Wood)	2.35@	
Hemlock	.65@	
Hops (oz.)	9.00@	
Horsemint	2.85@	
Hyssop	40.00@	
Juniper Berries	1.50@	1.65
Juniper Wood	.60@	.62
Laurel	15.00@	
Lavender, English.	32.00@	
French	3.25@	5.50
Lemon, Italian	1.15@	1.65
Calif.	.70@	.85
Lemongrass	1.20@	1.45
Limes, distilled	6.25@	7.25
expressed	11.00@	12.00
Linaloe	1.60@	1.85
Lovage	35.00@	
Mace, distilled	1.50@	
Mandarin	4.75@	7.50
Marjoram	6.25@	
Melissa	5.00@	
Mirbane (see Nitrobenzol)		
Mustard, genuine	8.50@	10.00
artificial	2.15@	2.40
Myrrh	10.00@	
Myrtle	4.00@	
Neroli, Bigarde, p.	55.00@	125.00
Petale, extra	70.00@	150.00
Niaouli	3.45@	
Nutmeg	1.50@	
Olibanum	6.50@	
Orange, bitter	2.00@	
sweet, W. Indian.	1.90@	2.15
Italian	1.85@	2.10
Spanish	2.80@	3.00
Calif. exp.	2.10@	
dist.	.75@	
Origanum, Spanish.	.85@	1.00
Orris root, con (oz.)	4.00@	5.00
Orris root, abs. (oz.)	35.00@	50.00
Orris Liquid	18.00@	25.00
Parsley	6.50@	
Patchouli	3.00@	3.35
Pennyroyal Amer.	2.15@	2.40
French	1.55@	1.65
Pepper, black	6.00@	6.50
Peppermint, natural	3.10@	3.40
Redistilled	3.25@	3.75
Pettitgrain	1.10@	1.35
French	2.35@	2.50
Pimento	1.45@	2.25
Pine cones	3.00@	
Pine needles, Siberia	.90@	
Pinus Sylvesthis	2.00@	2.15
Pumilionis	2.20@	
Rhodium, Imitation.	2.00@	4.50
Rose, Bulgaria (oz.)	6.00@	12.00
Rosemary, French.	.40@	.50
Spanish	.36@	.40
Rue	2.50@	
Sage	2.15@	
Sage, Clary	30.00@	
Sandalwood, East		
India	6.00@	7.00
Australia	5.75@	
Sassafras, natural.	.85@	.90
artificial	.48@	.55
Savin, French	1.85@	2.00
Spearmint	1.95@	2.15
Snake root	8.00@	10.00
Spruce	.65@	
Styrax	7.00@	
Tansy	2.20@	2.35
Thyme, red	.63@	.80
White	.90@	1.00
Valerian	10.50@	
Verbena	3.75@	7.00
Vetivert, Bourbon	10.00@	12.00
Java	15.00@	25.00
East Indian	30.00@	
Wine, heavy	1.40@	
Wintergreen, S'thern	3.00@	
Penn. & Conn.	5.00@	8.00
Wormseed	2.15@	2.50
Wormwood	3.00@	3.35
Ylang-Ylang, Manila	29.00@	35.00
Bourbon	5.00@	8.00

TERPENELESS OILS

Bay	4.00@	
Bergamot	6.00@	
Clove	4.00@	5.00
Coriander	20.00@	
Geranium	8.00@	12.50
Grapefruit	45.00@	
Sesquiter'less	85.00@	
Lavender	7.00@	8.50
Lemon	6.75@	14.50
Lime, ex.	50.00@	
Orange, sweet	78.00@	90.00
bitter	90.00@	115.00
Petitgrain	4.00@	
Rosemary	2.50@	
Sage, Clary	90.00@	
Vetivert, Java	35.00@	
Ylang-Ylang	28.00@	35.00

OLEO-RESINS

Benzoin	2.50@	5.00
Capsicum, U. S. P.		
VIII	2.65@	3.00
Alcoholic	3.00@	
Cubeb	3.25@	
Ginger, U.S.P. VIII	2.00@	
Alcoholic	3.25@	
Malefern	1.45@	1.60
Oak Moss	6.00@	15.00
Olibanum	3.25@	
Orris	17.00@	28.00
Patchouli	16.50@	18.00
Pepper, black	4.00@	4.60
Sandalwood	16.00@	
Vanilla	5.00@	7.50

DERIVATIVES AND CHEMICALS

Acetaldehyde 50%	2.00@	
Acetophenone	2.00@	3.00
Acetyl iso-eugenol	9.00@	
Alcohol C 8	14.00@	20.00
C 9	26.00@	40.00
C 10	18.00@	30.00
C 11	30.00@	40.00
C 12	14.00@	25.00
Aldehyde C 8	28.00@	
C 9	45.00@	70.00
C 10	30.00@	60.00
C 11	35.00@	50.00
C 12	32.00@	60.00
C 14 (so-called)	15.00@	35.00
C 16 (so-called)	17.50@	30.00
Amyl Acetate	.85@	1.00
Amyl Butyrate	1.00@	1.25
Amyl Cinnamate	2.50@	
Amyl Cinnamic Aldehyde	3.90@	4.00
Amyl Formate	1.60@	1.90

Amyl Phenyl Acetate	3.60@	4.00
Amyl Salicylate	.75@	
Amyl Valerate	2.40@	
Anethol	1.15@	1.25
Anisic Aldehyde	3.35@	
Benzaldehyde, U.S.P.	1.45@	
F. F. C.	1.55@	1.90
Benzophenone	2.00@	4.00
Benzyl Acetate	.70@	.85
Benzyl Alcohol	.95@	1.50
Benzyl Benzoate	1.05@	2.00
Benzyl Butyrate	5.50@	6.25
Benzyl Cinnamate	7.00@	9.00
Benzyl Formate	2.90@	3.25
Benzyl Iso-engenol	15.00@	25.00
Benzylidenacetone	2.50@	4.00
Borneol	1.75@	2.00
Bornyl Acetate	2.00@	6.00
Bromstyrol	4.00@	5.00
Butyl Acetate	.60@	
Butyl Propionate	2.00@	
Butyraldehyde	12.00@	
Carvene	1.15@	
Carvol	3.25@	4.00
Cinnamic Acid	4.00@	
Cinnamic Alcohol	3.25@	3.50
Cinnamic Aldehyde	2.50@	3.50
Cinnamyl Acetate	10.00@	12.00
Cinnamyl Butyrate	12.00@	14.00
Cinnamyl Formate	13.00@	
Citral C. P.	2.50@	3.00
Citronellal	2.40@	3.00
Citronellol	2.25@	2.75
Citronellyl Acetate	3.75@	
Coumarin	3.50@	
Cuminic Aldehyde	62.00@	
Dibutyphthalate	.30@	.36
Diethyphthalate	.32@	.37
Dimethyl Anthranilate	6.25@	7.00
Dimethyl Hydroquinone	3.75@	5.00
Dimethylphthalate	.50@	.60
Diphenylmethane	1.75@	2.45
Diphenyloxide	1.20@	
Ethyl Acetate	.30@	.50
Ethyl Anthranilate	5.50@	6.00
Ethyl Benzoate	1.20@	
Ethyl Butyrate	1.00@	
Ethyl Cinnamate	4.50@	
Ethyl Formate	1.00@	1.25
Ethyl Propionate	1.40@	2.50
Ethyl Salicylate	1.15@	2.50
Ethyl Vanillin	15.00@	20.00
Eucalyptol	.60@	1.00
Eugenol	2.60@	3.50
Geraniol, dom.	2.00@	6.00
Geranyl Acetate	2.90@	4.00
Geranyl Butyrate	6.00@	8.00
Geranyl Formate	5.00@	7.00
Heliotropin, dom.	2.20@	2.65
foreign	2.50@	
Hydratropic Al'hyde	25.00@	27.50
Hydroxycitronellal	3.60@	10.00
Indol, C. P. ... (oz.)	2.25@	5.00
Iso-borneol	2.30@	
Iso-butyl Acetate	2.65@	
Iso-butyl Benzoate	2.75@	3.25
Iso-butyl Salicylate	3.00@	6.00
Iso-eugenol	3.50@	4.00
Iso-safrol	1.75@	
Linalool	1.90@	2.75
Linalyl Acetate 90%	2.50@	2.75
Linalyl Anthranilate	15.00@	
Linalyl Benzoate	10.50@	
Linalyl Formate	10.00@	12.00
Menthol, Japan	3.50@	
Synthetic	2.25@	3.00
Methyl Acetophenone	2.20@	3.00
Methyl Anthranilate	2.50@	3.00
Methyl Benzoate	1.40@	1.75
Methyl Cinnamate	3.50@	
Methyl Eugenol	2.90@	6.75
Methyl Heptenone	3.75@	6.00
Methyl Heptine C'b.	20.00@	36.00
Methyl Iso-eugenol	8.50@	12.50
Methyl Octine Carb.	24.00@	32.00
Methyl Paracresol	4.65@	6.00
Methyl Phenylacetate	2.65@	3.00
Methyl Salicylate	.42@	.50
Musk Ambrette	5.00@	5.15
Ketone	5.15@	5.40
Xylene	1.50@	1.75
Nerolin (ethyl ester)	1.50@	1.75
Nitrobenzol	.15@	
Nonyl Acetate	48.00@	
Octyl Acetate	32.00@	
Paracresol Acetate	5.25@	6.00
Paracresol Methyl Ether	3.50@	5.00
Paracresol Phenyl-Acetate	14.00@	20.00
Para Cymene. (gal.)	1.25@	1.65
Phenylacetaldehyde 50%	5.00@	7.00
100%	8.50@	10.50
Phenylacetic Acid	2.50@	4.00
Phenylethyl Acetate	7.50@	10.00
Phenylethyl Alcohol	4.25@	4.75
Phenylethyl Anthranilate	16.00@	
Phenylethyl But'rate	12.00@	16.00
Phenylethyl Formate	18.00@	
Phenylethyl Propionate	12.00@	
Phenylethyl Val'rate	16.00@	
Phenylpropyl Acet.	8.00@	11.00
Phenylpropyl Alc'hol	6.00@	12.00
Phenylpropyl Aldehyde	8.00@	12.00
Rhodinol	8.00@	20.00
Safrol	.55@	.59
Santalyl Acetate	22.50@	
Skatol C. P. ... (oz.)	7.00@	10.00
Styralyl Acetate	20.00@	
Styralyl Alcohol	20.00@	
Terpineol, C. P.	.36@	.40
Terpinyl Acetate	.90@	1.15
Thymene	.35@	
Thymol	1.90@	2.75
Vanillin (clove oil)	4.00@	4.50
(guaiacol)	3.75@	4.25
Vetiveryl Acetate	21.00@	25.00
Violet Ketone Alpha	5.00@	10.00
Beta	5.50@	8.00
Methyl	5.25@	8.00
Yara Yara (methyl ester)	1.50@	1.75

BEANS

Tonka Beans, Para.	1.15@	1.40
Angostura	2.40@	2.50
Vanilla Beans		
Mexican, whole	3.25@	4.25
Mexican, cut	3.25@	3.65
Bourbon, whole	3.00@	4.00
South American	3.00@	3.40

SUNDRIES AND DRUGS

Acetone	.11@	.15
Alcohol, 190-pf. gal.	4.12½@	4.29½
Almond meal	.21@	.25
Alum, potash	.03¼@	.03½
Aluminum chloride.	.10@	
Ambergris	32.50@	Nom.
Balsam, Copaiba	.38@	.40
Peru	2.10@	2.25
Tolu	.80@	1.10
Fir, Canada, gal.	9.00@	12.00
Oregon	1.25@	1.50
Beeswax, white	.40@	.45
Yellow	.24@	.30
Bismuth sub-nitrate	1.40@	
Boric Acid, ton	105.00@	115.00
Calamine	.16@	.20
Calcium, phosphate.	.08@	.08¾
Ph'phate, tri-basic	.13@	.15
sulfate	.03¾@	.04
Camphor	.53@	.65
Cardamon seed	.65@	
Castoreum	17.50@	
Chalk, precip.	.03½@	.06½
Cetyl Alcohol	.75@	1.50
Pure	1.90@	2.15
Cherry laurel water, gal.	1.25@	
Citric acid	.30@	.35
Civet, ounce	3.75@	4.50
Cocoa butter	.12@	.15
Clay, Colloidal	.03@	.03½
Formaldehyde	.06@	.06¾
Fuller's Earth, ton	16.00@	30.00
Formic acid	.12@	.16
Fatty Acids (See Soap Sec.)		
Guarana	.75@	1.25
Gum Arabic, white.	.20@	.22
Amber	.09½@	.12
Gum Benzoin, Siam	1.30@	1.50
Sumatra	.24@	.30
Gum galbanum	1.05@	1.15
Gum myrrh	.30@	.40
Henna, powd.	.15@	.28
Hydrogen peroxide.	.05@	.08
Kaolin	.06@	.08
Labdanum	3.50@	5.50
Lanolin, hydrous	.18@	.22
anhydrous	.20@	.24
Lavender flowers	.24@	.55
Magnesium, Carbonate	.06¾@	.07½
Stearate	.19@	.25
Sulfate	.02½@	.03
Musk, ounce	15.00@	25.00
Oils, Vegetable (See Soap Sec.)		
Olibanum, tears	.13@	.30
siftings	.08@	.13
Orange flower water, gal.	1.50@	
Orange flowers	.30@	.90
Orris root, powd.	.20@	.75
Paraffin	.04½@	.07
Patchouli leaves	.16@	.20
Petrolatum, white	.07@	.11
Phenol	.16@	.20
Potassium, Carbonate	.13@	.16
Hydroxide	.07¼@	
Quince seed	.60@	1.00
Reseda flowers	1.50@	1.65
Rhubarb root, powd.	.28@	.50
Rice starch	.12@	.15
Rose leaves, red	1.40@	1.75
Rose water, gal.	1.25@	
Salicylic acid	.40@	.45
Sandalwood Chips	.45@	.50
Saponin	1.75@	
Soap, neutral white	.19@	.23
Sodium, Carb, crys.	.01¾@	.02¼
Phosphate, tribasic	.02½@	.04
Spermaceti	.22@	.25
Styrax	.40@	3.25
Sulfur, precip	.17@	.20
Tartaric acid	.27@	.30
Titanium oxide	.22@	.25
Tragacanth, No. 1	1.20@	1.50
Triethanolamine	.45@	.50
Venice turpentine, gal.	.30@	
Vetivert root	.30@	
Violet flowers	.95@	1.15
Zinc Peroxide	1.10@	1.75
Oxide	.13½@	.15
Stearate	.21@	.28

Prices in the New York Market

(Quotations on these pages are those made by local dealers, but are subject to revision without notice)

ESSENTIAL OILS

Almond Bit., per lb.	$2.20@	$2.40
S. P. A.	2.50@	2.75
Sweet True	.65@	.70
Apricot Kernel	.28@	.32
Amber, crude	.24@	.30
rectified	.50@	.60
Ambrette, oz.	46.00@	
Amyris balsamifera.	3.00@	3.25
Angelica root	50.00@	60.00
seed	65.00@	80.00
Anise, U. S. P.	.46@	.52
Araucaria	1.75@	1.85
Aspic (spike) Span.	1.35@	
French	1.55@	
Balsam, Peru	5.75@	6.25
Balsam, Tolu, oz.	4.25@	
Basil (oz.)	2.35@	
Bay	1.65@	2.00
Bergamot	1.65@	2.00
Birch, sweet N. C.	1.50@	1.75
Penn. and Conn.	2.15@	3.00
Birchtar, crude	.15@	
Birchtar, rectified	.75@	
Bois de Rose	1.40@	3.00
Cade, U. S. P.	.30@	.33
Cajeput	.55@	
Calamus	3.50@	
Camphor "white"	.26@	.30
Cananga, Java native	2.80@	3.25
rectified	3.15@	3.50
Caraway	2.00@	
Cardamon, Ceylon	14.00@	25.00
Cascarilla	60.00@	
Cassia, 80@85 p.c.	1.05@	
rectified, U. S. P.	1.35@	1.50
Cedar leaf	.65@	.70
Cedar wood	.28@	.32
Cedrat	4.15@	
Celery	15.00@	
Chamomile (oz.)	3.00@	7.00
Cherry laurel	12.00@	
Cinnamon, Ceylon	12.00@	20.00
Cinnamon, Leaf	2.25@	
Citronella, Ceylon	.35@	.40
Java	.40@	.46
Cloves Zanzibar	.95@	1.07
Cognac	18.00@	21.00
Copaiba	.57@	.62
Coriander	3.60@	
Croton	1.50@	1.70
Cubebs	3.00@	
Cumin	8.25@	
Curacoa peels	5.25@	
Curcuma	3.00@	
Cypress	12.00@	
Dillseed	3.60@	4.25
Elemi	1.45@	
Erigeron	1.30@	1.60
Estragon	38.00@	
Eucalyptus	.33@	.36
Fennel, Sweet	1.25@	1.45
Galbanum	26.00@	
Galangal	24.00@	
Geranium, Rose		
Algerian	5.00@	7.50
Bourbon	4.60@	6.00
Spanish	16.00@	
Turkish	2.10@	2.25
Ginger	3.40@	3.75
Gingergrass	3.25@	4.10
Grape Fruit	3.00@	
Conc.	24.00@	
Guaiac (Wood)	2.35@	
Hemlock	.65@	
Hops (oz.)	9.00@	
Horsemint	2.85@	
Hyssop	40.00@	
Juniper Berries	1.50@	1.65
Juniper Wood	.60@	.62
Laurel	15.00@	
Lavender, English.	32.00@	
French	3.25@	5.50
Lemon, Italian	1.15@	1.65
Calif.	.70@	.85
Lemongrass	1.20@	1.45
Limes, distilled	6.25@	7.25
expressed	11.00@	12.00
Linaloe	1.60@	1.85
Lovage	35.00@	
Mace, distilled	1.50@	
Mandarin	4.75@	7.50
Marjoram	6.25@	
Melissa	5.00@	
Mirbane (see Nitrobenzol)		
Mustard, genuine	8.50@	10.00
artificial	2.15@	2.40
Myrrh	10.00@	
Myrtle	4.00@	
Neroli, Bigarde, p.	55.00@	125.00
Petale, extra	70.00@	150.00
Niaouli	3.45@	
Nutmeg	1.50@	
Olibanum	6.50@	
Orange, bitter	2.00@	
sweet, W. Indian.	1.90@	2.15
Italian	1.85@	2.10
Spanish	2.80@	3.00
Calif. exp.	2.10@	
dist.	.75@	
Origanum, Spanish.	.85@	1.00
Orris root, con (oz.)	4.00@	5.00
Orris root, abs. (oz.)	35.00@	50.00
Orris Liquid	18.00@	25.00
Parsley	6.50@	
Patchouli	3.00@	3.35
Pennyroyal Amer.	2.15@	2.40
French	1.55@	1.65
Pepper, black	6.00@	6.50
Peppermint, natural	3.10@	3.40
Redistilled	3.25@	3.75
Pettitgrain	1.10@	1.35
French	2.35@	2.50
Pimento	1.45@	2.25
Pine cones	3.00@	
Pine needles, Siberia	.90@	
Pinus Sylvesthis	2.00@	2.15
Pumilionis	2.20@	
Rhodium, Imitation.	2.00@	4.50
Rose, Bulgaria (oz.)	6.00@	12.00
Rosemary, French.	.40@	.50
Spanish	.36@	.40
Rue	2.50@	
Sage	2.15@	
Sage, Clary	30.00@	
Sandalwood, East		
India	6.00@	7.00
Australia	5.75@	
Sassafras, natural.	.85@	.90
artificial	.48@	.55
Savin, French	1.85@	2.00
Spearmint	1.95@	2.15
Snake root	8.00@	10.00
Spruce	.65@	
Styrax	7.00@	
Tansy	2.20@	2.35
Thyme, red	.63@	.80
White	.90@	1.00
Valerian	10.50@	
Verbena	3.75@	7.00
Vetivert, Bourbon.	10.00@	12.00
Java	15.00@	25.00
East Indian	30.00@	
Wine, heavy	1.40@	
Wintergreen, S'thern	3.00@	
Penn. & Conn.	5.00@	8.00
Wormseed	2.15@	2.50
Wormwood	3.00@	3.35
Ylang-Ylang, Manila	29.00@	35.00
Bourbon	5.00@	8.00

TERPENELESS OILS

Bay	4.00@	
Bergamot	6.00@	
Clove	4.00@	5.00
Coriander	20.00@	
Geranium	8.00@	12.50
Grapefruit	45.00@	
Sesquiter'less	85.00@	
Lavender	7.00@	8.50
Lemon	6.75@	14.50
Lime, ex.	50.00@	
Orange, sweet	78.00@	90.00
bitter	90.00@	115.00
Petitgrain	4.00@	
Rosemary	2.50@	
Sage, Clary	90.00@	
Vetivert, Java	35.00@	
Ylang-Ylang	28.00@	35.00

OLEO-RESINS

Benzoin	2.50@	5.00
Capsicum, U. S. P.		
VIII	2.65@	3.00
Alcoholic	3.00@	
Cubeb	3.25@	
Ginger, U.S.P. VIII	2.00@	
Alcoholic	3.25@	
Malefern	1.45@	1.60
Oak Moss	6.00@	15.00
Olibanum	3.25@	
Orris	17.00@	28.00
Patchouli	16.50@	18.00
Pepper, black	4.00@	4.60
Sandalwood	16.00@	
Vanilla	5.00@	7.50

DERIVATIVES AND CHEMICALS

Acetaldehyde 50%	2.00@	
Acetophenone	2.00@	3.00
Acetyl iso-eugenol	9.00@	
Alcohol C 8	14.00@	20.00
C 9	26.00@	40.00
C 10	18.00@	30.00
C 11	30.00@	40.00
C 12	14.00@	25.00
Aldehyde C 8	28.00@	
C 9	45.00@	70.00
C 10	30.00@	60.00
C 11	35.00@	50.00
C 12	32.00@	60.00
C 14 (so-called)	15.00@	35.00
C 16 (so-called)	17.50@	30.00
Amyl Acetate	.85@	1.00
Amyl Butyrate	1.00@	1.25
Amyl Cinnamate	2.50@	
Amyl Cinnamic Aldehyde	3.90@	4.00
Amyl Formate	1.60@	1.90

Amyl Phenyl Acetate	3.60@	4.00
Amyl Salicylate ...	.75@	
Amyl Valerate	2.40@	
Anethol	1.15@	1.25
Anisic Aldehyde ...	3.35@	
Benzaldehyde, U.S.P.	1.45@	
F. F. C.	1.55@	1.90
Benzophenone	2.00@	4.00
Benzyl Acetate	.70@	.85
Benzyl Alcohol	.95@	1.50
Benzyl Benzoate ...	1.05@	2.00
Benzyl Butyrate ...	5.50@	6.25
Benzyl Cinnamate .	7.00@	9.00
Benzyl Formate ...	2.90@	3.25
Benzyl Iso-engenol..	15.00@	25.00
Benzylidenacetone ..	2.50@	4.00
Borneol	1.75@	2.00
Bornyl Acetate	2.00@	6.00
Bromstyrol	4.00@	5.00
Butyl Acetate	.60@	
Butyl Propionate ..	2.00@	
Butyraldehyde	12.00@	
Carvene	1.15@	
Carvol	3.25@	4.00
Cinnamic Acid	4.00@	
Cinnamic Alcohol ..	3.25@	3.50
Cinnamic Aldehyde.	2.50@	3.50
Cinnamyl Acetate ..	10.00@	12.00
Cinnamyl Butyrate.	12.00@	14.00
Cinnamyl Formate..	13.00@	
Citral C. P.....	2.50@	3.00
Citronellal	2.40@	3.00
Citronellol	2.25@	2.75
Citronellyl Acetate..	3.75@	
Coumarin	3.50@	
Cuminic Aldehyde..	62.00@	
Dibutyphthalate ...	.30@	.36
Diethyphthalate ...	.32@	.37
Dimethyl Anthranilate	6.25@	7.00
Dimethyl Hydroquinone	3.75@	5.00
Dimethylphthalate..	.50@	.60
Diphenylmethane ..	1.75@	2.45
Diphenyloxide	1.20@	
Ethyl Acetate	.30@	.50
Ethyl Anthranilate.	5.50@	6.00
Ethyl Benzoate	1.20@	
Ethyl Butyrate	1.00@	
Ethyl Cinnamate ..	4.50@	
Ethyl Formate	1.00@	1.25
Ethyl Propionate ..	1.40@	2.50
Ethyl Salicylate ...	1.15@	2.50
Ethyl Vanillin	15.00@	20.00
Eucalyptol	.60@	1.00
Eugenol	2.60@	3.50
Geraniol, dom.	2.00@	6.00
Geranyl Acetate ...	2.90@	4.00
Geranyl Butyrate ..	6.00@	8.00
Geranyl Formate ..	5.00@	7.00
Heliotropin, dom. ..	2.20@	2.65
foreign	2.50@	
Hydratropic Al'hyde	25.00@	27.50
Hydroxycitronellal..	3.60@	10.00
Indol, C. P. ...(oz.)	2.25@	5.00
Iso-borneol	2.30@	
Iso-butyl Acetate ..	2.65@	
Iso-butyl Benzoate..	2.75@	3.25
Iso-butyl Salicylate.	3.00@	6.00
Iso-eugenol	3.50@	4.00
Iso-safrol	1.75@	
Linalool	1.90@	2.75
Linalyl Acetate 90%.	2.50@	2.75
Linalyl Anthranilate	15.00@	
Linalyl Benzoate ..	10.50@	
Linalyl Formate ...	10.00@	12.00
Menthol, Japan ...	3.50@	
Synthetic	2.25@	3.00
Methyl Acetophenone	2.20@	3.00
Methyl Anthranilate	2.50@	3.00
Methyl Benzoate ...	1.40@	1.75
Methyl Cinnamate..	3.50@	
Methyl Eugenol ...	2.90@	6.75
Methyl Heptenone..	3.75@	6.00
Methyl Heptine C'b.	20.00@	36.00
Methyl Iso-eugenol..	8.50@	12.50
Methyl Octine Carb.	24.00@	32.00
Methyl Paracresol..	4.65@	6.00
Methyl Phenylacetate	2.65@	3.00
Methyl Salicylate ..	.42@	.50
Musk Ambrette ...	5.00@	5.15
Ketone	5.15@	5.40
Xylene	1.50@	1.75
Nerolin (ethyl ester)	1.50@	1.75
Nitrobenzol	.15@	
Nonyl Acetate	48.00@	
Octyl Acetate	32.00@	
Paracresol Acetate.	5.25@	6.00
Paracresol Methyl Ether	3.50@	5.00
Paracresol Phenyl-Acetate	14.00@	20.00
Para Cymene. (gal.)	1.25@	1.65
Phenylacetaldehyde 50%	5.00@	7.00
100%	8.50@	10.50
Phenylacetic Acid..	2.50@	4.00
Phenylethyl Acetate.	7.50@	10.00
Phenylethyl Alcohol.	4.25@	4.75
Phenylethyl Anthranilate	16.00@	
Phenylethyl But'rate	12.00@	16.00
Phenylethyl Formate	18.00@	
Phenylethyl Propionate	12.00@	
Phenylethyl Val'rate	16.00@	
Phenylpropyl Acet..	8.00@	11.00
Phenylpropyl Alc'hol	6.00@	12.00
Phenylpropyl Aldehyde	8.00@	12.00
Rhodinol	8.00@	20.00
Safrol	.55@	.59
Santalyl Acetate ..	22.50@	
Skatol C. P...(oz.)	7.00@	10.00
Styralyl Acetate ..	20.00@	
Styralyl Alcohol ...	20.00@	
Terpineol, C. P. ...	.36@	.40
Terpinyl Acetate ..	.90@	1.15
Thymene	.35@	
Thymol	1.90@	2.75
Vanillin (clove oil).	4.00@	4.50
(guaiacol)	3.75@	4.25
Vetiveryl Acetate ..	21.00@	25.00
Violet Ketone Alpha	5.00@	10.00
Beta	5.50@	8.00
Methyl	5.25@	8.00
Yara Yara (methyl ester)	1.50@	1.75

BEANS

Tonka Beans, Para.	1.15@	1.40
Angostura	2.40@	2.50
Vanilla Beans		
Mexican, whole ..	3.25@	4.25
Mexican, cut	3.25@	3.65
Bourbon, whole...	3.00@	4.00
South American..	3.00@	3.40

SUNDRIES AND DRUGS

Acetone	.11@	.15
Alcohol, 190-pf. gal.	4.12½@	4.29½
Almond meal	.21@	.25
Alum, potash	.03¼@	.03½
Aluminum chloride.	.10@	
Ambergris	32.50@	Nom.
Balsam, Copaiba ...	.38@	.40
Peru	2.10@	2.25
Tolu	.80@	1.10
Fir, Canada, gal..	9.00@	12.00
Oregon	1.25@	1.50
Beeswax, white	.40@	.45
Yellow	.24@	.30
Bismuth sub-nitrate	1.40@	
Boric Acid, ton.....	105.00@	115.00
Calamine	.16@	.20
Calcium, phosphate.	.08@	.08¾
Ph'phate, tri-basic	.13@	.15
sulfate	.03¾@	.04
Camphor	.53@	.65
Cardamon seed	.65@	
Castoreum	17.50@	
Chalk, precip.	.03½@	.06½
Cetyl Alcohol	.75@	1.50
Pure	1.90@	2.15
Cherry laurel water, gal.	1.25@	
Citric acid	.30@	.35
Civet, ounce	3.75@	4.50
Cocoa butter	.12@	.15
Clay, Colloidal	.03@	.03½
Formaldehyde	.06@	.06¾
Fuller's Earth, ton..	16.00@	30.00
Formic acid	.12@	.16
Fatty Acids (See Soap Sec.)		
Guarana	.75@	1.25
Gum Arabic, white.	.20@	.22
Amber	.09½@	.12
Gum Benzoin, Siam	1.30@	1.50
Sumatra	.24@	.30
Gum galbanum	1.05@	1.15
Gum myrrh	.30@	.40
Henna, powd.	.15@	.28
Hydrogen peroxide.	.05@	.08
Kaolin	.06@	.08
Labdanum	3.50@	5.50
Lanolin, hydrous ..	.18@	.22
anhydrous	.20@	.24
Lavender flowers ..	.24@	.55
Magnesium, Carbonate	.06¾@	.07½
Stearate	.19@	.25
Sulfate	.02½@	.03
Musk, ounce	15.00@	25.00
Oils, Vegetable (See Soap Sec.)		
Olibanum, tears ...	.13@	.30
siftings	.08@	.13
Orange flower water, gal.	1.50@	
Orange flowers	.30@	.90
Orris root, powd. ..	.20@	.75
Paraffin	.04½@	.07
Patchouli leaves ...	.16@	.20
Petrolatum, white ..	.07@	.11
Phenol	.16@	.20
Potassium, Carbonate	.13@	.16
Hydroxide	.07¼@	
Quince seed	.60@	1.00
Reseda flowers	1.50@	1.65
Rhubarb root, powd.	.28@	.50
Rice starch	.12@	.15
Rose leaves, red...	1.40@	1.75
Rose water, gal. ...	1.25@	
Salicylic acid	.40@	.45
Sandalwood Chips..	.45@	.50
Saponin	1.75@	
Soap, neutral white	.19@	.23
Sodium, Carb, crys..	.01¾@	.02¼
Phosphate, tribasic	.02½@	.04
Spermaceti	.22@	.25
Styrax	.40@	3.25
Sulfur, precip	.17@	.20
Tartaric acid	.27@	.30
Titanium oxide	.22@	.25
Tragacanth, No. 1..	1.20@	1.50
Triethanolamine ...	.45@	.50
Venice turpentine, gal.	.30@	
Vetivert root	.30@	
Violet flowers	.95@	1.15
Zinc Peroxide	1.10@	1.75
Oxide	.13½@	.15
Stearate	.21@	.28

New York Market Report

THE market for essential oils and aromatics has been rather quiet but reasonably steady since our review of last month. Expectations which had been held in some directions that there would be a resumption of the heavy demand of Autumn and early Winter during the latter part of January and the first part of February have not been realized. There has been a steady demand for small quantities and some fairly good business has been done but buyers have not been in the market for the quantities which were expected in some quarters.

However, it is known that supplies of finished goods in the hands of makers of toilet preparations and soaps are by no means large and it is expected in most quarters that business from these branches will shortly improve. There have also been inquiries for raw materials and also for compounded perfume oils from makers of household insecticides. It is believed that this class of trade will come into the market somewhat earlier than usual this year.

Prices in general have been steady throughout the market for essential oils. Floral products have been firm but have not advanced as rapidly as some had anticipated. Even a short crop has not relieved all the pressure on the Grasse houses and some selling effort is now in evidence. Domestic oils are generally steady and without much change. Citrus oils are not overly active. It is expected that March will bring a heavier demand for early preparations for seasonal trade in beverages, but it seems unlikely that this will be sufficient to have any great effect upon the market. In synthetics, the situation remains as before with makers in control of prices and not much tendency to change them in either direction. An exception is noted in the case of vanillin which was again reduced sharply by the manufacturers during the month. The cut came in both clove oil and guaiacol qualities and the same differential in price is maintained between them which was in effect before the reduction. Other items are steady and without any material change in quotations.

Modernizing Manufacture

(*Continued from Page* 628)

to proper ring shape with holes drilled at intervals and fitted with valve and air mixer serves quite well.

Refrigerating

Chilling is essential to the manufacture of crystal clear sales-inviting perfumes, toilet waters, shampoos and the like. Refrigerating equipment is now available in such a variety of types and sizes for industrial installation and at such low cost that no excuse longer exists for neglecting to make this installation.

It is an acknowledged fact that only distilled water is chemically pure, yet many products that would be improved by its use are manufactured with ordinary city tap water. Perfumes, toilet waters, mouth washes, liquid deodorants, shampoos and skin tonics and astringents is to name but a few of them in which distilled water gives best results.

Water stills, both gas fired and steam heated are available in such a variety of types and in capacity from a single gallon an hour up to any desired capacity that they will not be discussed at length.

Prices of Soap Materials

Tallow and Grease

Tallow, N. Y. C. extra	$0.06	@	
Edible		Nominal	
Fancy	.07½	@	
Grease white	.05¾	@	
House	.05⅝	@	
Yellow	.05½	@	
Lard	.11½	@	.13½

Fatty Acids

Coconut Oil, 98% Saponifiable, tanks	.09½	@	
Corn Oil, 95% T.F.A. tanks	.06½	@	
Red Oil, distilled, tanks	.06½	@	
Saponified	.07	@	
Stearic Acid, single pressed, c. l.	.10	@	
Double pressed	.10½	@	
saponified	.11	@	
Triple pressed	.13¼	@	
Saponified	.13½	@	

Soap Making Oils

Castor No. 1, tanks	.09½	@	
No. 3, tanks	.09	@	
Coconut, Manila Grade, tanks	.04½	@	
Corn, crude, Midwest mill, tanks	.10¼	@	
Cotton, crude, Southeast, tanks	.09	@	
Refined		Nominal	
Foots 50% T.F.A.	.02½	@	
Lard, common No. 1 barrels	.08½	@	
Olive, denatured, max. 5% F.F.A. drums, gal.	.94	@	.95
Foots, Prime, green, barrels	.08	@	
Palm, Lagos, max. 20% F.F.A., drums	.05⅛	@	
Niger, casks	.04¾	@	
Palm, Kernel, tanks	.04½	@	
Peanut, crude, barrels	.10¾	@	
Refined, barrels	.13¼	@	
Soya beans, max. 2% F.F.A., Midwest mill tanks	.09⅛	@	
Tallow, acidless, barrels	.08¾	@	
Whale, Crude No. 1, Coast, tanks	.03⅞	@	
Refined, barrels	.06½	@	

Glycerine

Chemically pure, drums extra	.14½	@	.16
Dynamite, drums included	.13¾	@	.14
Saponification, drums	.10	@	
Soap, lye	.09	@	

Rosin

Barrels of 280 pounds

B	$5.15	K	$6.00
D	5.30	M	6.05
E	5.45	N	6.40
F	5.90	W.G.	6.90
G	5.90	W.W.	7.55
H	5.95	X	7.60
I	6.00	Wood	5.40

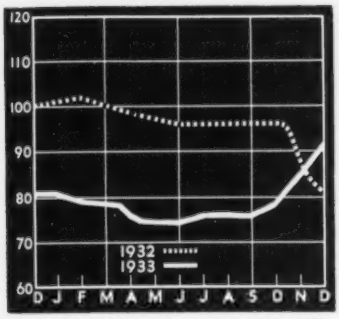
Chemicals

Acid, muriatic, 18°, 100 pounds	$1.00	@	1.60
Sulfuric, 60°, ton	11.00	@	
66°, ton	15.50	@	
Borax, crystals, carlot, ton	42.00	@	71.00
Cyclohexanol (Hexalin)	.30	@	
Naphtha, cleaners, tank cars	.05	@	.05½
Potassium, carbonate, 80@85%	.07	@	
Hydroxide (Caustic potash) 88@92%	.07¼	@	
Salt, works, ton	11.50	@	14.00
Sodium carbonate (Soda ash) 58% light, 100 pounds	1.23	@	2.37
Hydroxide (Caustic Soda) 76% Solid, 100 pounds	2.60	@	3.75
Silicate 40°, drums, works, 100 pounds	.80	@	
Sulfate, anhydrous	.02¼	@	.03
Phosphate, tri-basic	.02½	@	.03
Zinc oxide	.05¾	@	

ALCOHOL NEWS

MARCH ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1934

ETHYL ALCOHOL PRODUCTION



(moving twelve-month averages, 1931 = 100)

ETHYL ALCOHOL PRODUCTION

		1933	1932
PRODUCTION			
1000 proof gals.	Jan.-Dec.	138,189	128,819
	Dec.	15,396	5,278
	Nov.	15,979	7,391
SALES			
1000 proof gals.	Jan.-Dec.	137,466	117,094
	Dec.	12,703	7,484
	Nov.	21,771	8,703

ALCOHOL MARKET FIRM

The alcohol market remained exceptionally firm during February. Large bulk movement of C. D. 5 for the anti-freeze trade was recorded, due to the continuance of favorable weather. Demand for the other formulas of industrial alcohols has been good, reflecting improved conditions within the trade.

The year end figures for production of pure ethyl alcohol made a surprisingly strong showing, bringing the total for the year well ahead of 1932. This is particularly encouraging because the stocks on hand at the end of 1933 were well reduced.

MASON JOINS U. S. I. ALCOHOL CO. AS ASSISTANT TO THE PRESIDENT

The appointment of J. Tenney Mason as assistant to the president of the U. S. Industrial Alcohol Co., effective February 15th, was announced by Charles S. Munson, president. All of the company's activities in the molasses business will be under the supervision of Mr. Mason who is now in Cuba inspecting the properties and plants of the company.

Mr. Mason, a Swarthmore graduate, joins U. S. I. after serving over eighteen years with E. I. DuPont de Nemours & Company, Inc.

Mr. Mason will have his headquarters in the executive offices of U. S. I. in the Lincoln Building, New York.

NEW INSTITUTE COMMITTEE

A Traffic Committee has been formed by the Industrial Alcohol Institute for the purpose of presenting a united opinion in dealing with problems and regulations relative to transportation which pertain to the Alcohol Industry as a whole.

H. W. MacArthur, Traffic Manager of the U. S. Industrial Alcohol Co., was named chairman of the committee.

* * *

A new compound which is said to be suitable as an artificial musk has been patented. It is made by the further butylation and subsequent nitration of 1- methyl- 3-methoxy-6-tertbutylbenzene.

ADEQUATE SOLVENT REQUIRED TO INSURE GOOD COSMETICS

In the formulation of cosmetics, it is necessary to consider the best methods of keeping the preparations from deteriorating on standing.

The use of good quality ingredients is, of course, essential. Another factor of safety, but one which is frequently overlooked, is to use an amount of alcohol which is adequate to keep the ingredients in solution. The manufacturer should use sufficient solvent, not only to insure good condition of the product when it is sent out, but enough to guard against deterioration and consequent sales loss after a period of standing. The alcohol concentration is sometimes so low that a slight resinification of essential oils, a change in reaction of the solution, or perhaps a lowering of temperature will cause the product to develop turbidity followed by the formation of actual precipitates. Such a condition may render the preparation entirely unsalable.

ANHYDROUS ALCOHOL AS A SOLVENT FOR NITROCELLULOSE

It is generally accepted that anhydrous denatured alcohol is a satisfactory solvent for alcohol soluble nitrocellulose and also a latent solvent for regular soluble nitrocellulose. When blended with the usual ester solvents, anhydrous alcohol acquires definite solvent properties which make possible material cost savings.

For example: a blend of ethyl acetate 85% and anhydrous alcohol has a toluol dilution ratio of 3.7 whereas that of ethyl acetate alone is 3.5. An increase in the totuol dilution ratio is characteristic of the blends of most of the usual esther solvents and anhydrous alcohol.

U. S. I. is equipped to supply anhydrous alcohol—both pure and denatured—to meet the specific requirements of the trade.

* * *

Industrial alcohol is to be produced on a commercial scale using potatoes as the raw material in Ireland. The production will be controlled by the Irish Free State government.

37% OF INDUSTRIES INCREASED USE OF S. D. ALCOHOL IN YEAR

Of a total of forty industries—grouped according to the type of products manufactured, fifteen or thirty-seven percent showed appreciable increases in the amount of specially denatured alcohol withdrawn during the past fiscal year. This fact is particularly encouraging when it is considered that the period covered included the extreme low point of business activity and did not include the last six months of 1933, which evidenced a noticeable pick-up in virtually all lines of business.

The total withdrawal of S. D. alcohol for the fiscal year ending June 30, 1933, was 66,823,343 wine gallons compared with 75,465,367 wine in the preceding period.

The annual report, released by the Commissioner of Industrial Alcohol, reveals that the production of artificial silk accounted for the largest increase in volume withdrawals of specially denatured alcohol. This industry consumed 3,190,953 more gallons in 1933 than it did in the preceding year. This represents a gain of 95 percent.

Disinfectants Show 200 P. C. Gain

A 200 percent increase—the greatest percentage gain of any classification—was registered by the disinfectant and deodorant industry. In the production of Pectin a total of 2,490,176 gallons were consumed.

Other industries which scored increases during the past fiscal year, together with the percent gain include the following: Polishes and Cleaners, 54%; Dyes and Dye Intermediates, 33%; Tincture of Iodine, 19%; Electrical Supplies, 13%; Barber Supply Preparations, 12%; Rubbing Alcohol, 7%; Nitrocellulose, Tobacco and Tobacco Solutions, Photographic Supplies, and Hydraulic Brake Fluid each scored a gain of 4%.

Among the major industrial classifications to register declines in alcohol consumption were Vinegar, Pyroxylin Material, Perfume, Ethylene, Ether, Medicines and Drugs, and Toilet Preparations.

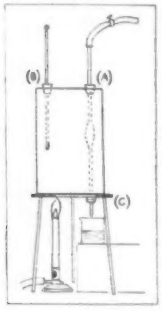
COMPARATIVE LIST OF INDUSTRIES USING SPECIALLY DENATURED ALCOHOL

Products	S. D. A. Used 1932-33	S. D. A. Used 1931-32	Comparison
Antiseptic solutions	787,071	888,221	— 101,150
Artificial silk	6,549,607	3,358,654	+ 3,190,953
Barber-supply preparations	66,532	59,259	+ 7,273
Bathing alcohol	1,647,262	1,526,091	+ 121,171
Bay rum	236,495	274,442	— 37,947
Candy glaze	29,055	34,581	— 5,526
Cement	32,353	39,501	— 7,148
Chemicals and food products	9,247,122	12,106,251	— 2,859,129
Dentifrices and tooth paste	37,688	39,860	— 2,172
Deodorants and disinfectants	113,726	37,833	+ 75,893
Drugs and medical supplies	2,905,460	3,431,993	— 526,533
Dyes and dye intermediates	678,103	506,869	+ 171,234
Electrical supplies	30,878	27,323	+ 3,555
Ether	1,071,522	1,265,568	— 194,046
Ethyl acetate	4,099,573	4,339,489	— 239,916
Ethylene	157,500	305,519	— 148,019
Fungicides and insecticides	11,886	18,768	— 6,882
Hair tonics	531,613	686,296	— 154,683
Hats	18,751	19,476	— 725
Hydraulic brake fluid	175,616	167,500	+ 8,116
Lacquers and lacquer thinners	6,661,884	8,327,734	— 1,665,850
Leather and leather solutions	277,964	314,986	— 37,022
Liniments and lotions	613,830	1,031,265	— 417,435
Nitrocellulose	5,959,799	5,701,906	+ 257,893
Pectin	2,490,176		+ 2,490,176
Perfumes	150,222	170,555	— 20,333
Petroleum and lubricating oils	1,266,465	1,334,760	— 68,295
Photographic supplies	1,215,260	1,166,308	+ 48,952
Polishes and cleaning fluids	124,145	80,155	+ 43,990
Pyroxylin and pyroxylin plastics	2,631,823	4,266,119	— 1,634,296
Resin and synthetic resin materials	666,757	604,540	+ 62,217
Shellacs, varnishes, and paints	3,668,271	3,885,229	— 216,958
Soaps, all kinds	141,851	210,407	— 68,556
Solvents	5,314,766	8,564,369	— 3,249,603
Tincture of Iodine	69,545	58,015	+ 11,530
Tobacco and tobacco solutions	1,285,122	1,218,988	+ 66,134
Toilet preparations	588,513	782,256	— 193,743
Toilet waters	513,236	586,945	— 73,709
Vinegar	4,326,872	7,766,130	— 3,439,258
Miscellaneous articles and uses	429,029	261,206	+ 167,823
Total	66,823,343	75,465,367	— 8,642,024

Published Monthly by the U. S. Industrial Alcohol Co.

OIL VISCOSITY DETERMINATION PERMITTED WITH SMALL SAMPLES

A simple laboratory viscometer for determining the viscosity of oils has been recently described which has several advantages over the standard methods. It permits the determination with very small samples of the oil (10 cc. or less), it saves considerable time in the operation, the temperature remains constant, check determinations may be made without loss of the oil, and the apparatus is compact.



The diagram shows the construction of the instrument. In the one employed, an inverted half-gallon can was used for the water jacket. The two openings at (A) and (B) were punched, (A) directly opposite the screw cap opening (C) of the can. Through these two openings is tightly fitted a 5 cc. pipette remaining well inside the can with the tip extending below the bottom stopper about 1 cm. Rubber tubing is attached to the top and the oil is drawn up into the pipette well above the 5 cc. mark. Into the opening (B) a thermometer is fitted in the same manner.

The can, previously filled with water is then heated to the desired temperature. The oil is maintained at the required temperature a few minutes and then leveled to the 5 cc. mark. The control of the oil flow is most easily done by placing a finger on the top of the stem. When the finger is removed, a stop watch is started simultaneously. The moment the last drop of oil has left the pipette, the watch is stopped and the time recorded.

The figures obtained in this way are relative but direct comparisons may be made with the known viscosities of well-known oils as given by standard viscometers.

—Courtesy of Frank M. Biffen and The Chemist-Analyst

CLASSIFYING RELATIVE VALUES

It is often necessary in laboratory work to make comparisions of quantities which cannot be reduced to numerical form. The relative intensity of odors or their degree of resemblance are in this class.

A unique method of recording and summarizing such comparisions has been applied to a wide variety of subjects such as the relative health of botanical specimens, color shades of chemical precipitates, adhesiveness of wall paper to various plasters and has been used to some extent in the U. S. I. laboratories for comparing odors of alcohols.

The individual samples are compared and the "winner" in each case is recorded in a special table. The "winners" are then totaled and a score value is obtained for each sample.

This scoring system is increasingly useful as the number of samples to be compared increases but of course depends for its accuracy upon the correctness of individual judgments. It is a method of recording and formalizing such judgments. It was described with reference to botanical comparisions in the "Plant World," Vol. 18, September 1915.

USES OF ALCOHOL IN INDUSTRY—No. 10

This is the tenth of a series of articles describing briefly the important contributions alcohol has made to the health and well-being of mankind.

FUEL USES OF ALCOHOL

Alcohol is inflammable. When pure, it burns with a colorless, odorless and sootless flame. These ideal burning characteristics have made alcohol a most valuable medium for obtaining heat for many varied and accessory uses where convenience or emergency is to be served. Well known illustrations are laboratory spirit lamps, chafing dish burners, soldering torches, etc.

In recent years, so-called "solid alcohol" or "canned heat" has become very popular. This product is essentially a stiff jelly made by adding alcohol to a soap or nitrocellulose solution. The latter has the advantage of remaining solid until completely burned which is an important safety factor.

The use of alcohol as a commercial fuel is almost entirely governed by economic and political policies. Compared with gasoline, alcohol—gallon for gallon—has about two-thirds the fuel value of gasoline, and with suitable mechanical adjustment, will operate with entire satisfaction in internal combustion engines. In countries which have no petroleum resources, and where gasoline must be imported, governments have required the addition of alcohol to gasoline, thus fostering the home manufacture of fuel alcohol.

From a strictly technical standpoint and disregarding the political controversies which have raged in this country over fuel alcohol as an outlet for farm products, the addition of alcohol to gasoline confers particular advantages in motor operation. Such alcohol blends promote smooth fast running, freedom from carbon deposits, and have distinct "anti-knock" features. Several specialty alcohol fuels are on the market which are used extensively in motorboat engines. Recent speed records have been attained through the employment of this type of fuel.

TECHNICAL DEVELOPMENTS

Spirit of mercurochrome may be prepared by the following suggested formula which has been developed abroad. 2 parts mercurochrome, 54 parts 90% alcohol, 10 parts acetone, and 34 parts distilled water

* * *

That pure Ethyl Alcohol is produced in small quantities by the human body, has been scientifically demonstrated by German physiologists, through the chemical analysis of ground tissue or blood.

* * *

Alcohol is reported as now being added to ammonia to give a mixture for dissolving keratin for the preparations of wave-setting fluids. Formerly, where ammonia was used alone, the preparation was said to impair the lustre and color of the hair.

* * *

Medicines for the treatment of septic ailments in animals, consisting of oil of parsley dissolved in absolute alcohol, have been patented abroad. The concentrated solution is diluted with distilled water according to the ailment to be treated.

* * *

Cetyl alcohol, one of the higher alcohols which is being used in increasingly large quantities in the drug field is now bring produced commercially in the United States. Its chief use is as a base for cosmetic creams and ointments.

* * *

Fermentation of molasses wort by yeast is greatly accelerated by short exposure to ultra-violet rays according to a recent report. The final efficiency of the fermentation is also increased. The irradiated yeast has more activity, which permits the use of less yeast and results in an actual saving of time.

* * *

A method for preparing compounds which are stable at atmospheric temperatures but evolve foam at raised temperatures without the addition of water or other liquid has been patented. Intended for use in medicines and cosmetics, it consists of two gelatinous substances each containing one component of a gas evolving reaction and at least one of which contains a liquid such as water.

* * *

Commercial production of furfuryl alcohol has been announced. This higher alcohol generally exhibits characteristics of the primary alcohols but when treated with strong acids produces secondary reactions which yield resinous products. This property has been applied to the formation of protective coatings. Because of its selective solvent action, it is said to be useful in removing undesirable products from wood resin and mineral oils.

* * *

A new edition of the "Gauging Manual" has been issued by the U. S. Treasury Department, Bureau of Industrial Alcohol. Containing 580 pages, the book embraces instructions and tables for determining quantity of distilled spirits by proof, weight, etc. Copies may be obtained for $1.00 from the Superintendent of Documents, Washington, D. C.

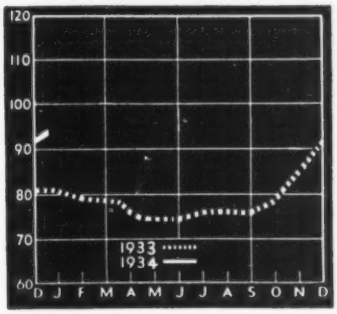
* * *

A novel vacuum can and bottle filling machine, designed to take care of both large and small runs is illustrated at the left. It differs from the usual vacuum filling equipment in that the filling head is lowered onto the container rather than raising the container against the filling stems. The packages may be filled by the straight line method or after they have been packed in cartons.

ALCOHOL NEWS

APRIL ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1934

ETHYL ALCOHOL PRODUCTION



(moving twelve-month averages, 1931 = 100)

		1934	1933
PRODUCTION			
1000 proof gals.	Jan. . .	13,756	6,014
	Dec. .	15,396*	5,278**
	Nov. .	15,979*	7,391**
SALES			
1000 proof gals.	Jan. . .	11,556	7,178
	Dec. .	12,703*	7,484**
	Nov. .	21,771*	8,703**

*1933 **1932

BASE ALCOHOL PRICES UNCHANGED DRUM DIFFERENTIAL UP ONE CENT

The base prices on industrial alcohol in tank cars, with the exception of Specially Denatured Formula 23 and 23-a, are unchanged for the second quarter.

Formula 23 and 23-a are advanced 1½¢ per gallon due to the higher costs of acetone.

Prices in drums, barrels and cans are advanced 1¢ per gallon over the former schedule due to substantially higher costs of these containers.

Current quotations at producing points for the second quarter ending June 30th are as follows:

C.D. No. 5 and 10	
Drums, Carlots	33c per gal.
Less carlots—1 to 4 drums.	41c per gal.
5 or more	39c per gal.
S.D. No. 1	
Tanks	29.5c per gal.
Drums, carlots	34.5c per gal.
Less carlots—20 drum lots.	36.5c per gal.
5 to 19 drums	40.5c per gal.
1 to 4 drums.	42.5c per gal.
(Anhydrous grade 5c per gal. higher)	
Ethyl, 190 Proof, tax-paid*	
Tanks	$4.085 per gal.
Drums, carlots	$4.135 per gal.
Less carlots—20 drum lots.	$4.155 per gal.
5 to 19 drums	$4.235 per gal.
1 to 4 drums.	$4.255 per gal.

*For non-beverage use only. Includes only Federal Taxes.

NEW METHOD OF PREPARING SOLID ALCOHOL FOR FUEL USE

An absolute monohydric alcohol, such as ethyl alcohol, mixed with nitrocellulose forms the basis of a recently patented method of preparing a solid alcohol fuel.

The nitrocellulose, insoluble in the absolute alcohol at ordinary temperatures becomes soluble when the alcohol is chilled to low temperatures. In this process a mixture of nitrocellulose and absolute alcohol is chilled to approximately −20 deg. C. and a similar amount of aqueous alcohol, chilled to approximately the same temperature, is added. The mixture solidifies when allowed to warm to atmospheric temperature.

* * *

Dilute ethyl alcohol extract of red sandal wood or cochineal is said to make a suitable dye for coloring mouth washes containing about 60 percent. ethyl alcohol and 6 percent. hydrogen peroxide.

CARBON DIOXIDE—AN IMPORTANT ALCOHOL BY-PRODUCT—HAS MANY INTERESTING USES

Used Chiefly in Carbonated Beverages and Refrigeration. It Has Many Medicinal and Industrial Uses in Both Solid and Gaseous Form

Carbon dioxide, one of the more common atmospheric gases, has become a well-known commodity in the world markets. Carbon dioxide, or carbonic gas, is obtained in commercial quantities as a by-product of the fermentation process employed in the production of ethyl alcohol. It is also produced on a large scale by the combustion of coke, the burning of limestone, and by separation from natural gas. Further purification by complex methods yields a product which has many uses.

Roughly 75 percent of the entire production of carbonic gas is used in the manufacture of carbonated beverages such as ginger ale, seltzer, etc.; of the remaining 25 percent, about one-half is used for refrigeration purposes and the rest finds employment in a great many industrial processes.

Unusual Industrial Uses

Carbonic gas is used in packing cocoanut and milk powders and cod-liver oil; in the manufacture of salicylic acid and urea; as an insecticide for fumigation purposes; precipitating metals in the sugar industry; mixed with oxygen it is used for medical purposes, and it also is employed in the analysis of tin.

In the heavier industrial fields, it is used in the transfer and recovery of flammable solvents in chemical and dry-cleaning industries; for fire extinguishing purposes; in spray painting and drying of porcelain cabinets; pressure testing; cleaning and purging gas mains and gasometers; manufacture of sponge rubber and inflating air bags in the rubber industry; and to hasten plant growth.

Carbonic gas for the drawing of draught beer is becoming of increasing importance. In the race for market supremacy brewers are beginning to realize that they must not only advocate, but insist, that their dispensers use carbonic gas for beer-

(Continued on next page)

EXTENSIVE USE OF SOAPS IN COSMETIC MANUFACTURE

Soap is an important ingredient in many cosmetic preparations, particularly in the field of creams, lotions and dentifrices. Dental creams have a soap content up to 45% and dentifrice soaps as high as 68%.

Olive oil (castile) soap is extensively used in the preparation of face creams on account of its blandness, mildness and smoothness. Cocoanut oil, palm oil and cocoa-butter soaps are also favorite ingredients. Resin soap and the sulphoricinoleates of soda and ammonia are variously employed in detersive lotions. The sulphoricinoleates are also excellent solvents for other soaps, and of glycerine.

Vanishing creams, "skin foods," etc. permit the use of stearate of soda in a more finely divided condition than is obtained in ordinary soap, of which it is the main constituent. Pure stearic acid is emollient and its presence modifies the action of soap on the skin. It is used in the cream in a quantity in excess of that required to form a neutral soap with alkali.

Cuticle creams, shampoos, witch hazel and peroxide creams, rolling massage cream and the various complexion "milks" all rely upon a greater or less soap content for their beneficial effects.

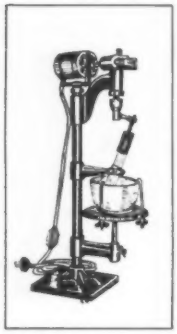
In the March issue of ALCOHOL NEWS it was stated that total withdrawal of S.D. alcohol for the fiscal year ending June 30th, 1933 was 66,823,343 wine gallons compared with 75,465,367 in the preceding period. These figures are the amount of S.D. alcohol *used* during the periods and not *withdrawn*; they include approximately thirty million gallons which are recovered and reused.

FILLING CARBONDIOXIDE CYLINDERS: The carbonic gas, first purified, is compressed into standard size cylinders containing 20 or 50 pounds of the gas. It is then ready for storage or shipment to the many varied industries which it serves.

Published Monthly by the U. S. Industrial Alcohol Co.

NOVEL GRINDING MACHINE SIMULATES HAND OPERATION

A simple and effective automatic grinding device has been developed for use in ink, pharmaceutical and paint laboratories which is said to simulate the hand grinding operations of the well-known mortar and pestle, and at the same time relieve the monotony of hand operations.



It is said to have a smooth, steady action and by closely following the contour of the mortar, it throws back unground portions until a fine thorough mix is secured. It may be used in grinding pharmaceuticals, colors, coal ash, clays, herbs, tissues, etc.

A special attachment can be attached to convert the grinder into a stirring device for mixing small batches of liquids as well.

CARBON DIOXIDE—BY-PRODUCT OF ALCOHOL—HAS MANY USES

(*Continued from preceding page*)

drawing. As it is the natural gas inherent in the beer itself, it is the only method that insures the beer reaching the consumer in a healthy and sanitary condition. This is being endorsed by State Departments of Health as a Public Health Measure.

Carbonic gas, used at soda fountains, puts the familiar fizz in soda water.

"Dry Ice" Uses Expanding

The above uses apply to carbon dioxide as a gas. In its solid form it is known as carbonic ice, or more commonly, "Dry Ice." In this form 90 percent of it is used in the ice cream industry for transportation and storage of ice cream. As against water ice, it has the advantage of eliminating rusting, and gives higher refrigeration value per pound and therefore permits a heavier pay-load. It also eliminates mechanical difficulties.

Miscellaneous uses of carbonic ice include freezing mixtures for laboratory use; transporting fresh fruits and juices, cosmetics, bone dry shellac, chocolate, etc.; varnish cooling; refrigeration in medicine and surgery; purging water and oil wells; in the sulphonation of organic chemicals and many other varied fields.

More detailed information on any of the more unusual uses of carbon dioxide will gladly be given interested manufacturers by writing direct to the carbon dioxide affiliate of U. S. I., Pure Carbonic, Incorporated, 60 East 42nd Street, New York City.

USES OF ALCOHOL IN INDUSTRY— No. 11

This is the eleventh of a series of articles describing briefly the important contributions alcohol has made to the health and well-being of mankind.

ALCOHOL IN THE PHOTOGRAPHIC INDUSTRY

Photography—the art and science of producing pictures by the action of light on chemically sensitized materials—owes much of its progress and present outstanding position to the use of alcohol. From the primitive processes of Daguerre in 1826, the photographic industry has developed and advanced until it serves almost without exception, every branch of pure and applied science.

For many years, the conventional "movie" films were made of celluloid coated with a sensitive emulsion. The manufacture of celluloid consumes a very large gallonage of alcohol and although celluloid films have been generally replaced by the less inflammable cellulose acetate films, this branch of manufacture is still a very substantial user of industrial alcohol.

Alcohol is used in the manufacture and preparation of the plastic compounds for X-Ray plates and negatives. In hospital and research laboratories, the microscopic bacteriological, histological and mechanical photographs are directly dependent on alcohol for their present state of high development.

In photo-mechanical processes, such as photo-engraving, alcohol is a very important raw material. These processes are essentially the preparation of thin nitrocellulose solutions (collodions made with ether-alcohol) sensitized with silver and other inorganic salts. When flowed on a glass plate, they form sensitive emulsions which are used for photographic reproductions.

In color photography, which employs special aniline dyes, alcohol is an indispensable raw material in the preparation of these dyes.

Many of the organic developers which are a necessary part of photographic work, have their origin in alcohol—or need alcohol in their manufacture.

Thus it is readily evident that the photographic industry which contributes so much to the pleasure, health and well-being of mankind is dependent on alcohol.

TECHNICAL DEVELOPMENTS

A new anesthetic, previously used successfully in England and Germany has recently been tried with good results in this country. As yet unnamed, it is a powder which is dissolved in water for hypodermic injection. It is claimed that the action is so rapid that sleep is produced in twenty seconds.

* * *

Emulsified creams are at times inclined to "sweat" or separate. This sometimes occurs because the principal body ingredients, the oil and water solutions, are not kept at the same temperature during the mixing. 60 deg. C. has been suggested as approximately the ideal temperature, although in some cases a temperature as high as 80 deg. C. is required.

* * *

A sanitary gauze bandage dispenser for use in hospitals and physicians' offices has been invented. Constructed on the principle of a towel cabinet, a large roll of bandage is enclosed in a sanitary container. Through an opening in the side, the desired length may be pulled out, and the remainder is protected from contamination.

* * *

A new surgical dressing is made of gauze bandage together with an outer covering of fabricated rubber latex which adheres to itself and securely and neatly fastens the bandage in place. In addition the dressing is treated to give it both antiseptic and analgesic properties.

* * *

Benzyl alcohol, incorporated in tooth pastes, is said to improve their cleansing action, removing films and stains without any harmful action to the enamel. It may be added either directly to the tooth paste or mixed with bases or diluents.

* * *

A new type closure for collapsible tubes has been announced by a manufacturer. It is said to prevent losses from leakage or corrosion, and to eliminate any seepage of alcohols, oils and similar products. A special adhesive is precoated on the portion to be crimped together to insure a secure closure. The seal will withstand internal pressure almost to the bursting point of the tube.

* * *

Bandages—specially treated so as to liberate active oxygen when moistened—form the basis of a recent German patent. They are prepared by impregnating with such substances as perborates or percarbonates together with a stabilizer such as magnesium silicate.

* * *

A process for the treatment of molasses for yeast production by electrolytic bleaching has been patented. The molasses is first diluted, a small amount of non-poisonous inorganic acid added, and then subjected to the action of an electric direct current until bleached to about 60 percent. The impurities are removed by filtration and the excess acid neutralized.

* * *

A new compound, having therapeutic properties and containing a halogen derivative of an o-hydroxylbenzyl alcohol has been patented. It may be formed into tablets or used as an intra-muscular injection.

* * *

Yeast and similar organisms for medicinal and food uses are cultivated by subjection to a deficiency of nitrogenous nutrient while in the presence of an oxidizing agent or oxygen carrier, according to claims of a recent patent covering the process.

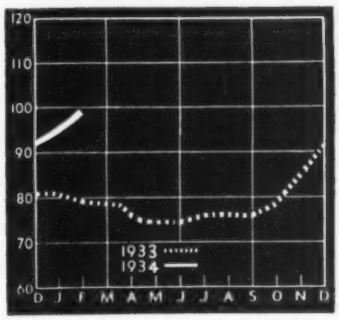
* * *

The use of irradiated ergosterol in cosmetics has been opposed by three German scientists on the grounds that while it is a powerful therapeutic agent, it cannot be recommended to everyone. No objection was made to the use of unirradiated lanolin, etc.

ALCOHOL NEWS

MAY ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1934

ETHYL ALCOHOL PRODUCTION



(*moving twelve-month averages, 1931=100*)

		1934	1933
PRODUCTION			
1000 proof gals.	Jan.-Feb.	27,566	15,098
	Feb.	13,810	9,084
	Jan.	13,756	6,014
SALES			
1000 proof gals.	Jan.-Feb.	22,423	14,676
	Feb.	10,867	7,498
	Jan.	11,556	7,178

PRODUCTION AT 1931 LEVEL; SALES AND PRICES REMAIN GOOD

The index number for ethyl alcohol production is now at 99.5; within striking distance of the 1931 average of 100. Both production and sales are continuing well ahead of the corresponding period a year ago, with production for the month of February showing a marginal increase over January, 1934. February sales, however, were slightly below the January total.

Price changes in the alcohol market during the past month recorded an adjustment on Pure Absolute Alcohol in fifty-four gallon drums to 10c per gallon over the delivered prices for equivalent quantities of 190 proof pure alcohol. The prices on small packages and cases were unchanged. Prices on other industrial alcohols were firm during the past month.

U. S. P. & N. F. ELIXIRS NOT TAXED

Certain elixirs and similar medicines containing alcohol used principally as vehicles, when made in accordance with the official formulas may be sold in good faith for legitimate non-beverage purposes without incurring special taxes for their manufacture and sale. A ruling to this effect (T.D.4424) has been issued by the Commissioner of Internal Revenue.

The elixirs and other preparations exempted from the tax are specifically listed in the ruling. They are used chiefly by physicians and pharmacists as vehicles.

CAPTAIN McGOVERN HONORED

Captain James P. McGovern, who for many years was Washington Counsel for U.S.I. and who is now general counsel for the Industrial Alcohol Institute, has been appointed aide-de-camp on the staff for the governor of Kentucky, with the rank of Colonel.

CANE ALCOHOL OR GRAIN ALCOHOL FOR TECHNICAL AND PHARMACEUTICAL USES

Increased Cost of "Grain" Spirit Is Leading Buyers to Investigate Characteristics of the Pure "Cane" Product

The cost of pure ethyl alcohol produced from grain as a raw material has been steadily rising until the price is now 40 cents per gallon higher than pure ethyl alcohol produced from molasses. This increasing difference in price is leading the prospective buyer of ethyl alcohol for industrial uses to a closer comparison and appraisal of the two products.

The first alcohol produced commercially in this country was from grain. The manufacturers of that period in response to demands from the trade, improved the quality of their product by gradual refinement of equipment and production methods.

However, when "Tax-free" alcohol was authorized in 1906, the use of alcohol for industrial purposes increased so rapidly that a cheaper raw material was required. This was found in "blackstrap" molasses, which today supplies approximately 85 per cent of the country's industrial alcohol needs.

When first introduced, the alcohol produced from molasses *was* admittedly inferior for special, or quality uses to that made in the grain plants. Production technique for cane spirits, was perfected slowly from the standpoint of a quality product. It is, therefore, easy to understand how grain alcohol originally earned the reputation for quality that it entirely deserved in the earlier days of the industry.

Chemical Specifications Identical

Today, of course, this condition is no longer true. The technically minded buyer knows that there is no physical or chemical difference between pure ethyl alcohol made from molasses and pure ethyl alcohol made from grain. Both products are identical as to physical characteristics and chemical composition. *Pure* ethyl alcohol is always the same whether the raw material is a natural

(*Continued on next page*)

EIGHTEENTH ANNIVERSARY OF U. S. I. PLANTS AT BALTIMORE

This month marks the 18th anniversary of the completion of the original Baltimore Plant of the U.S. Industrial Alcohol Co., at Curtis Bay, Baltimore, Md.

Construction, which was started two years earlier was completed in May, 1916, in time to supply the greatly increased demand for industrial alcohols needed in the manufacture of munitions and other armaments for the World War.

About the same time, the Curtis Bay Chemical Co., predecessor to the U.S. Industrial Chemical Co., Inc., was organized and operations commenced on the building of another large plant for the manufacture of acetone and other war-time chemicals. Since the war the plant has been re-equipped and devoted to the production of a complete line of alcohol-derived chemicals by the U. S. Industrial Chemical Co., Inc.

HASKELL NAMED TO U. S. I. BOARD

Glenn Haskell, First Vice-President of the U.S. Industrial Alcohol Co., was elected a member of the Board of Directors at the annual meeting of the Company held April 19th.

Mr. Haskell, who has held the office of First Vice-President since its creation in 1931, was formerly a Vice-President and has been a member of the organization for over fifteen years.

Mr. Haskell is also President of the Industrial Alcohol Institute.

PURE ALCOHOL OF THE HIGHEST STANDARDS OBTAINABLE: Thus, all pure ethyl alcohol—tax-paid and tax-free—made by U.S.I. is known to the trade. The three brands shown above have long been recognized for their consistent uniformity and high quality. U.S.I. is prepared to supply all needs of qualified users of pure ethyl alcohol in any quantity from gallons to tank car lots.

Published Monthly by the U. S. Industrial Alcohol Co.

MAY **ALCOHOL NEWS** ★ 1934

CANE ALCOHOL OR GRAIN ALCOHOL

(*Continued from preceding page*)

sugar or a cereal containing starch which is converted into a sugar during the process of manufacture. No difference between the two finished products may be determined by chemical test.

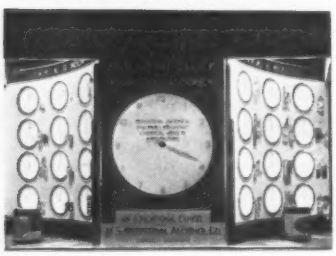
Odor and taste were formerly the distinguishing factors. This difference in odor and taste was due to the impurities characteristic of the raw material used. Cane ethyl alcohol was said to possess "rum" odor and "rum" impurities while grain ethyl alcohol was characterized as having "whiskey" odor and "whiskey" impurities. But as the removal of impurities approached complete elimination, these differences converged into a single true spiritous odor of pure alcohol. Today, under modern production methods these differences are so minute that even the long-practiced expert may not *positively* identify one sample as cane and another as grain spirits. Where such a difference may be detected, it is due to the recognition of the characteristic odor of the impurities in the grain alcohol, whereas the cane alcohol is without a distinguishing odor.

With the perfection of production and rectification processes, cane spirits has been, for a number of years, a product which is, from the standpoint of chemical purity, fully equal if not superior to "grain" alcohol.

Insofar as the buyer is concerned, the single factor of *purity* is, therefore, the deciding factor in the determination of quality.

Pure alcohol of modern manufacture made from either cane or grain fully conforms or is superior to the requirements of the U.S.P. or N.F. specifications, and with no way of differentiating between the two products, the primary consideration in making a choice is reduced to a cost basis for even the most exacting needs of the quality field.

NEW EDUCATIONAL EXHIBIT



AROUND THE CLOCK WITH INDUSTRIAL ALCOHOL: Every hour of the day is used to illustrate a timely application of industrial alcohol in this new educational exhibit of U.S.I., maintained on 42nd Street, New York.

USES OF ALCOHOL IN INDUSTRY— No. 12

ALCOHOL IN THE HOME

In the daily life of the individual, alcohol serves him at almost every step—and in a multitude of ways. It enters vitally into the manufacture of most of his necessities, luxuries or conveniences. Figuratively, he touches alcohol directly or indirectly, everywhere — although many products derived from alcohol may not contain alcohol in their marketed form.

He is aroused in the morning by the tap of his alarm clock which is lacquered. The coverlet on his bed, his bath robe, the curtains and rugs, all are dyed with alcohol derived colors. Proceeding to his bathroom, he uses soap containing a trace of alcohol, his shaving cream, lotions and hair tonic are made with alcohol. The mirror is backed with silver deposited by alcohol. As he clothes himself, alcohol has been used in his mercerized underwear and socks, in his hose supporters, belt and buttons, in his shoe sole and shoe polish —and again in the dyes for his necktie and suit. His staircase and living-room floor are surfaced with shellac which employs alcohol and as he sits down to his breakfast table, the various jams, jellies and vanilla flavored edibles have needed alcohol in the making.

Leaving for the office, he glances at the spirit thermometer and decides to have some alcohol put in his automobile radiator. In his car he is still very close to alcohol derived products—the lacquer finish, the top material, brake fluid and dashboard instruments.

The housewife in her round of duties—social and family—likewise meets alcohol at every turn. It is used in perfumes, toilet waters and the various beauty preparations. Alcohol is a major ingredient in the various remedies and first aids in the medicine cabinet. Rubbing alcohol alleviates muscular pain and tones up the invalid while solid alcohol is a quick emergency fuel for the sick room and nursery.

For the social gathering, the playing cards, poker chips, tobaccos and chafing dish are all illustrations of the wide application of alcohol in the home. Nearly 100 million gallons of alcohol yearly find applications in these common household articles and uses.

TECHNICAL DEVELOPMENTS

Stainless steel pails of seamless construction are now offered for use in the handling of many corrosive materials. Specially rounded on the bottom to avoid corners and crevices where the material might lodge, they suggest many possible uses in chemical and manufacturing processes. ✱ ✱ ✱

Antiseptics, of the n-hexyl-m-dihydroxy-benzene type possess certain advantages for use in toothpastes according to claims of a recent patent. Such antiseptics are said to be very powerful yet safe for this purpose and in addition, some have a very low surface tension which facilitates ready penetration—an aid in cleaning. ✱ ✱ ✱

Spirit cleaners, recent developments in the field of soap chemistry, have met with considerable trade acceptance. This type of liquid cleanser is basically compounded of a small amount of sodium lauryl sulphonate in a hydroalcoholic mixture containing about 35 percent alcohol with the addition of about 5 percent glycerine. ✱ ✱ ✱

Terpeneless orange extract which corresponds in flavoring strength to orange extract may be made by dissolving the terpeneless oil of orange in dilute alcohol. In tests conducted with thirty-one different samples, the oil content of orange extract varied from 4.1 to 16.2 percent according to a recent report which stated that the extract should contain at least 5 percent by volume. ✱ ✱ ✱

Unusual clarity in X-Ray negatives is claimed to be the result of the use of a new chemical product (sodium ortho-iodo-hippurate). It is injected into the subject before the X-Ray is made. Unlike the other compounds developed for X-Ray visualization, it requires only small doses and is also said to be comparatively inexpensive. ✱ ✱ ✱

A new antiseptic has been introduced this month which is also said to be a deodorant. It contains a combination of alkyl and halogen phenol derivatives; has a phenol coefficient of five; and is recommended in dilutions of one-half to two percent. It is marketed under the trade name "Amphyl." ✱ ✱ ✱

A new fractional distillation apparatus for compounds with boiling points less than 500°C. is now on the market. It is based on the use of a vacuum jacket form of insulation and of a wire coil packing. Extraordinary sharpness of separation is claimed for the instrument by reason of its special design and careful construction. ✱ ✱ ✱

A new type opacimeter for measuring the opacity of paper has been introduced. It has been suggested that it might also be employed to measure the covering power of face powder. Operated by means of a photo-electric cell, it is possible to measure light penetrations on a white and on a black background respectively ✱ ✱ ✱

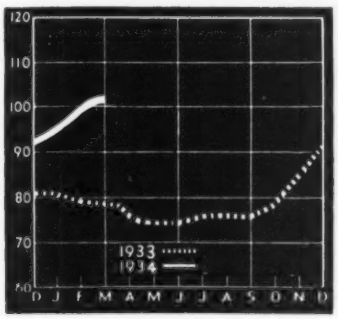
Perfume may soon be carried about in the form of a small piece of wood according to current reports. Balsa wood, one of the spongiest known, may be impregnated with any perfume; and acting as a sponge will retain both the odor and color for a long time. ✱ ✱ ✱

This month's "neatest trick" title goes to the stove polish manufacturer who introduced a combination container and brush for direct convenient application. The honor is shared, however, by the inventor of the clothes brush having a reservoir for a cleaning liquid in the single unit—thus brushing and cleaning is permitted in one operation.

ALCOHOL NEWS

JUNE ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1934

ETHYL ALCOHOL PRODUCTION



(moving twelve-month averages, 1931=100)

			1934	1933
PRODUCTION				
1000 proof gals.	Jan.-March	. .	39,879	23,327
	March	. .	12,313	8,229
	Feb.	. .	13,810	9,084
SALES				
1000 proof gals.	Jan.-March	. .	33,887	22,427
	March	. .	11,464	7,751
	Feb.	. .	10,867	7,498

ALCOHOL MARKET QUIET

New developments were lacking in the alcohol market and price situation during the past month. The price structure maintained a firm tone and while the demand was relatively light, both production and sales of ethyl alcohol continued well above comparable statistics for last year.

Seasonal slowing up of general consuming industries as well as the let-up in the demand from the anti-freeze trade have been the chief causes for the slight leveling out of the production trend.

SYNTHETIC PERFUME AND FLAVOR PRODUCTION GAINING IN U. S.

American manufacturers continue to make progress in the production of artificial flavors and perfumes, a large proportion of which is composed of synthetic aromatic chemicals, produced from coal tar. At the rate progress is now being made, it may not be long before the United States will be independent of foreign sources for these important commodities, according to a recent report from the Chemical Division of the U. S. Bureau of Foreign and Domestic Commerce.

The downward trend in imports of flavors and perfume materials of coal tar origin, apparent in 1933, is continuing in 1934. During the first three months of this year the dollar value of imports was only $13,383 compared with $18,247 for the first quarter of 1933 and $41,220 for the corresponding period in 1932.

A large demand for synthetic aromatic chemicals is supplied by manufacturers of soaps, toiletries, pharmaceuticals, foods, beverages, insecticides, disinfectants, deodorants, etc. Lately, synthetic perfumes are said to have found use in building a sales appeal in silk hose, lingerie, and other items of apparel.

SUPPRESSION OF BACTERIAL CONTAMINATION IN MAKING HIGH QUALITY ETHYL ALCOHOL

Proper Treatment Essential to Both Quality and Yield; Understanding of Problem Leads to Appreciation of "Quality" Product

In the production of all ethyl alcohol of the high quality and uniformity as that required of all plants of the U. S. Industrial Alcohol Co., the control of bacterial contamination is one of the most important steps in the entire process. Proper solution of this problem is absolutely essential because faulty fermentation not only affects the yield but the quality as well.

No amount of redistillation and purification will compensate for inadequate control and supervision of this vital factor in the production of "quality" spirits.

From the following brief discussion of the problem, a greater appreciation may be gained for the "quality" product as such, and of the care and precautions taken to insure entire production of the highest grade and degree of uniformity.

In the design of an alcohol plant, it is necessary to keep in mind that conditions favoring the growth requirements of the yeast used in alcoholic fermentation also favor the growth of bacteria which adversely influence the fermentation process for the production of ethyl alcohol, both as to quality and yield. Special precautions, therefore, must be taken to exclude these bacteria as far as possible and at the same time favor vigorous yeast fermentation.

In nature, three outstanding natural bacterial fermentations occur, namely lactic, acetic and butyric. It is the bacteria initiating these types of fermentation which must be excluded from the alcoholic yeast fermentation in a distillery. The butyric bacteria present a special problem in that a portion of their life cycle includes a spore stage which is particularly resistant to heat or antiseptics which may be used to combat them.

Fortunately, it has been found that by

(Continued on next page)

ALCOHOL IN VITAMIN EXTRACTION

The importance and utility of alcohol in practical research is again emphasized by its use in connection with vitamin extraction work now under way at the Basic Science Research Laboratory at the University of Cincinnati.

Considerable work is being done on the preparation of vitamin B_1 from yeast. A number of methods of extraction — some involving the use of large quantities of alcohol—have been developed which lead to products of high potency.

Vitamin B_1 is the anti-polyneuritic vitamin and is essential to humans for proper appetite and growth. The problem is to prepare the vitamin in a pure crystalline form so that it can be dispensed as a standard preparation of known potency.

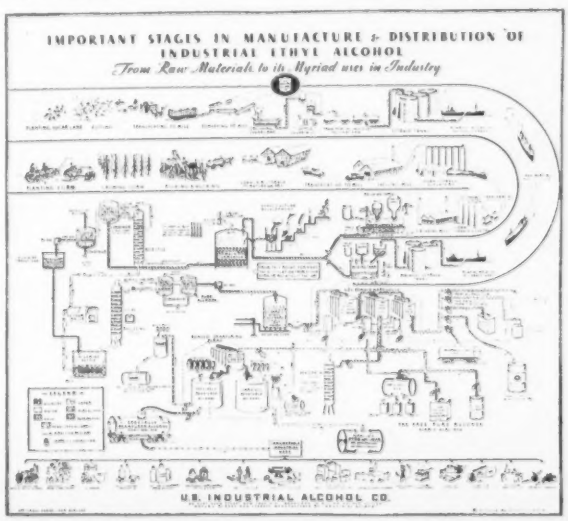
Ultra-violet absorption spectra are employed in studying the chemical structure of this vitamin. Up to the present results indicate that the vitamin is probably a modified purine or pyrimidine; possibly a pentoside of cytosine — a pyrimidine found in the nuclei of all living cells.

* * *

As a soap preservative, sodium thiosulfate offers several advantages over sodium sulfite, in being readily soluble, free from a tendency to form lumps, and odorless. However, its readiness to part with an atom of sulfur and reduce to sulfite must be guarded against. This happens under many conditions: in solution, in the presence of air, acid, metals, etc.

Production of Ethyl Alcohol, from raw materials to industrial application, is graphically illustrated by this flow-chart, prepared by the U. S. Industrial Alcohol Co. Beginning in the cane and corn fields; through detailed fermentation and distillation operations; through the government warehouses and denaturing plants the alcohol is traced to its ultimate industrial uses.

Attractively finished copies of this chart, 19" x 21", are available for distribution to interested parties.



Published Monthly by the U. S. Industrial Alcohol Co.

THE USE OF VEGETABLE JUICES IN COSMETICS

While plant and vegetable juices have long been used in medicine, their possible use in cosmetics has been largely overlooked by manufacturers, according to a recent statement by a German authority. Reference is made, not to the essential oils, but to the chemical ingredients of the juices themselves, which have therapeutic value when applied externally to the skin. Sulfur, to name a single example, is found in the juice of beans, nettles, water-cress, coltsfoot, garlic, dandelions, radish, yarrow, ribwort and onions. Similarly, lime, potash, phosphates, albumen, phosphorus, chlorine, vitamines, etc., are found in various other vegetable juices.

BACTERIAL CONTROL IN "QUALITY" ALCOHOL

(Continued from preceding page)

regulating the pH or hydrogen ion concentration of the fermentation mashes, a point may be found which is optimum for yeast but which inhibits the growth of the spore forming butyric bacteria. The acetic types are markedly aerobic, i.e. require free oxygen and since a yeast fermentation soon becomes anaerobic, these forms may be suppressed.

The growth of the lactic types, and also of the other two, are largely controlled by resorting to the use of steam sterilization of pipe lines and fermentation vessels. The air used for agitation of mashes is also filtered to remove infecting micro-organisms.

Equipment Design Important

The design of an alcohol plant must be such as to eliminate "dead-ends" or places where pockets of mash may remain to become infected and escape sterilization. Such pockets act as infecting seed, and initiate growth of undesired or harmful bacteria in mashes which have been perfectly sterilized, thus undoing all the precautions which have been taken in their preparation.

Thus, much of the control work in a fermentation process has to do with the skillful application of bacteriological procedures which are known to favor the production of vigorous pure strains of yeast and at the same time exclude or weaken the types of infecting bacteria which are always present.

The importance of the proper handling of this delicate problem cannot be over emphasized. The work done in the research and control laboratories and the rigid supervision and careful sterilization carried out in the plants have all contributed to the enviable reputation of the U. S. Industrial Alcohol Co. for the consistent production of ethyl alcohol of the highest quality and uniformity.

USES OF ALCOHOL IN INDUSTRY— No. 13

ALCOHOL—AN ESSENTIAL CHEMICAL IN OUR DAILY LIFE

So wide-spread and diversified are the applications of alcohol to the comfort, covenience and health of the individual, that this all-important commodity ranks among the most essential raw materials of our modern civilization. Within the last quarter century, its production has steadily increased reaching in 1933, a figure approaching 100,000,000 gallons—all of which is devoted to industrial and medical needs.

Health: The preservation and restoration of health is essential to public welfare. Hospitals employ alcohol or alcohol derived materials in many ways of which anesthesia, surgery, antiseptics and research are outstanding illustrations.

Countless medicines and remedies contain alcohol as a necessary ingredient. Many medicines, drugs and pharmaceuticals, while not containing alcohol, have required it in the preparation of the active principles.

National Defense: Alcohol is a most important arm in warfare. Nearly all explosives, propellants and poison gases are closely associated with alcohol in their manufacture. Likewise, many accessories of war from the "bank indicator" of the airplane to the tin of "canned heat" are typical of the role alcohol plays in National Defense.

Comfort and Convenience: No hard and fast line can be drawn between these terms—and alcohol contributes immeasurably to all the things which make life pleasurable and worth living. The vast systems of communications owe their functioning to electrical equipment in which alcohol plays a part. The myriad motor cars which crowd the highways testify to the use of alcohol in their manufacture. The home with its many furnishings and those of the individual —all have employed alcohol somewhere along the line of their development or fabrication.

Beauty Aids and Cosmetics: Personal charm, cleanliness and attractiveness are today indebted to cosmetics, perfumes and other more essential aids to personal health as dentifrices, soaps, disinfectants, etc. all of which contain alcohol.

Thus it will be seen that a normal life, from necessities to luxuries is bound up in the story of alcohol.

TECHNICAL DEVELOPMENTS

A concentrated hair wave lotion has been introduced abroad consisting of gum karaya; aquaresin G. M. and alcohol together with perfume and coloring. It is diluted with water before using.

* * *

To encourage the use of alcohol, (a home product) as a motor fuel in Brazil, police authorities are said to be reducing fines for traffic violations if the offender is using an alcohol motor fuel. Alcohol is also reported to be used as a fuel in street lamps in Argentina.

* * *

A new principle has been used in making shaving soaps by a Hungarian inventor. According to his process, a reaction between an alkali and an ammonium soap is allowed to take place on the face—with water acting as a necessary catalyzer. This reaction is said to aid materially in the softening of the toughest beard.

* * *

A small amount of Polyglycol is said to be useful as an ingredient in alcoholic perfume compositions for use in cosmetics. It is claimed that the Polyglycol helps to prevent separation of the components.

* * *

A new type water-still of 3 gallons per hour capacity is now offered with several improvements for laboratory or commercial use. It has a Pyrex glass cover to permit observation and facilitate cleaning; a triple vapor baffle; and a "flushout" which minimizes the concentration of impurities in the boiling chamber.

* * *

A new pellet mill is said to compress a variety of loose materials, such as mineral powders, dry feed, dehydrated charcoal, etc., into firm shapes without the use of a binder. Results are accomplished by placing the material under very high pressure and subjecting it to a twisting action.

* * *

Hygrometers enclosed in Cellophane, according to experiments conducted in Germany, give the same readings as those that are not, due to the fact that Cellophane is permeable to moisture and reacts quickly to changes in humidity. It is suggested that where the ordinary hygrometer is rapidly corroded or rendered useless by dust, its usefulness is preserved if it is enclosed in a Cellophane sheath.

* * *

A new **cleaning and polishing fluid** has been developed for use on chrome finishes, particularly on automobiles. Great speed and ease of application are claimed for the product, which not only polishes the chrome surface but also effectively removes rust and discoloration.

* * *

One of the principal ingredients of a **new dental preparation** is bentonite, said to lend desirable detergent, curative and cleansing properties to the product. Among the other ingredients are magnesium oxide, sodium fluoride, sodium phosphate, oil of eucalyptus, gum camphor and benzoin.

* * *

Ethylene gas has been reported to offer an effective medium for removing from walnuts their outer husks when the latter have failed to crack normally.

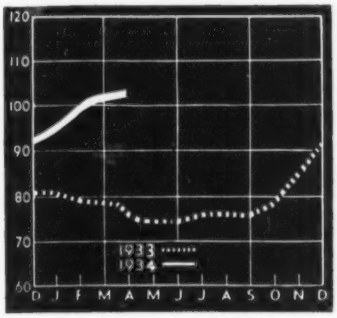
* * *

Aluminum and other metal powders may be used in the manufacture of floating soaps. Both a lightening and a bleaching effect are obtained from the evolved hydrogen when the metal acts on the alkali present. From 20 to 30 gm. are used for 100 kgm. of soap.

ALCOHOL NEWS

JULY ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1934

ETHYL ALCOHOL PRODUCTION



(moving twelve-month averages, 1931=100)

			1934	1933
PRODUCTION				
1000 proof gals.	Jan.-April	. .	52,610	32,339
	April	. .	12,731	9,012
	March	. .	12,313	8,229
SALES				
1000 proof gals.	Jan.-April	. .	43,833	29,094
	April	. .	9,946	6,667
	March	. .	11,464	7,751

ALCOHOL PRODUCTION UP AS SALES HAVE SEASONAL LAG

The alcohol market was characterized by extreme quiet during June. The slight seasonal recessions affecting the majority of the alcohol consuming industries was reflected in the demand for industrial alcohols and withdrawals continued in a lethargic manner.

A new high was reached for production of ethyl alcohol according to latest available figures, the index number for April reaching 104.6.

The current month should see a considerable volume of C. D. alcohol business booked for the account of the anti-freeze trade as July and August represent peak months for anti-freeze sales.

SYNTHETIC MEDICINAL OUTPUT RAPIDLY EXPANDING IN U. S.

Developments in the field of synthetic medicinals have constituted a signal achievement of American Chemical Industry. According to a report of the U. S. Department of Commerce, many such medicines formerly obtained abroad are today produced in the United States.

Imports of synthetic medicinals of coal-tar origin have steadily declined from 153,157 pounds in 1929, to only 19,128 pounds in 1933. For the first three months of 1934 only 3,083 pounds of coal-tar medicinals were received from abroad compared with 5,588 pounds in the corresponding period of 1933.

This decline has largely been offset by the enormous increase in domestic production which has taken place in recent years. In 1931 sales of synthetic coal-tar medicinals amounted to 1,876,000 pounds. By 1932 sales totalled 6,090,000 pounds and the domestic industry was well on the way to supply our entire domestic demand.

Industrial alcohol is an important ingredient in the manufacture of many of these synthetic medicinal products.

U. S. I. A. PLANS BIG SUPER PYRO CAMPAIGN FOR COMING SEASON

Super Pyro, the anhydrous automobile anti-freeze, introduced by U. S. I. last year, will be promoted by a greatly increased merchandising and advertising campaign for the coming season. A nation-wide survey conducted in January, February and March revealed the fact that Super Pyro had enjoyed the widest acceptance and largest sale ever achieved by any new anti-freeze product in its first year. Nearly 2,000,000 gallons were sold by 22,000 dealers to more than a million motorists.

The sales policy behind Super Pyro in 1933 which provided dealers with a stable product that gave them a guaranteed margin of profit, will be continued in full force for this year. A firm, uniform retail price of 25 cents a quart, and rigid price and profit protection for jobber and dealer will be adopted in an effort to divorce Super Pyro from the evils of cut-price competition and other unfair trade practises often associated with the ordinary anti-freeze alcohol business.

New 55-gal. drum, decorated in brilliant three-colored design.

In addition to the advantages afforded the dealer and distributor handling Super Pyro, it offers five distinct advantages to the motorist:

1. **Full Strength**—greater protection against freezing.
2. **Rustproof**—protects against rust and corrosion.
3. **Lasts Longer**—soluble oil retards evaporation.
4. **Golden Color**—protects against substitution.
5. **Economical**—only 25 cents a quart.

The comprehensive sales promotion campaign planned for fall includes advertising in the Saturday Evening Post, newspapers in important cities, and billboards in big cities and on main highways. Super Pyro dealers will also be furnished with a complete line of dealer helps and station display material.

A novel feature of the campaign will be a $5,000 prize slogan contest in which contestants will submit slogans based upon the superior qualities of the product. The contemplated advertising and merchandising campaign is the most extensive ever put behind an anti-freeze in the popular-price field.

NEW USE FOR ANHYDROUS ALCOHOL IN DEEP-ETCHED LITHOGRAPHY

A new process for making deep-etched lithographic plates requiring the use of an anhydrous alcohol has been developed by the Lithographic Technical Foundation, Inc., which opens a new field for tne use of this increasingly important product. In a report entitled "Processes for Making Deep-Etched Zinc Lithographic Plates"* recently published by the Foundation, the use of anhydrous denatured alcohol is advocated in overcoming problems involved in the present processes.

The deep-etched process, giving greater durability and reliability than the albumen or ordinary hand transfer methods, has become of increasing importance within the last three or four years. However, there are still a number of difficulties involved which are now overcome by the new and improved processes outlined in the report. For example, one of the methods commonly employed calls for the use of a concentrated ferric chloride solution. By replacing this with an anhydrous denatured alcohol-hydrochloric acid solution, the danger of the ferric chloride solution attacking the glue in undesired spots is removed.

The report states that the use of an-

(Continued on next page)

ALCOHOL LAWS AMENDED BY MASSACHUSETTS LEGISLATURE

Senate Bill 355 with amendments was passed by the Massachusetts State Legislature, Friday, June 29th. The same afternoon, House Bill 1602 carrying amendments and defining proof gallon was also passed.

Section 303-A, 303-B, 303-C, 303-D and 303-E of Senate Bill 355 which amends Chapter 94 of the General Laws, pertains to the sale of methyl or wood alcohol and preparations containing 3 percent. or more of same. It also amends Section 76 of Chapter 376 of the Laws of 1933. This Section permits the sale of Denatured Alcohol anywhere in the Commonwealth, and authorizes the commission to grant licenses for the manufacture, transportation, importation, exportation and sale of alcohol for mechanical, chemical or manufacturing purposes.

House Bills 1627 and 1648 were defeated; each of which referred to sales of alcohol by registered pharmacists.

One of the new Super Pyro 24-sheet poster designs, scheduled to appear on the highways this fall. Brilliantly lithographed in seven colors, and featuring the campaign slogan, "Super Protection with Super Pyro."

Published Monthly by the U. S. Industrial Alcohol Co.

CAUSES AND PREVENTION OF RANCIDITY IN TOILET SOAPS

The oxidation or rancidity of toilet soaps may be brought about or accelerated by a number of different causes, most of which are preventable. One obvious precaution is the use of high grade raw materials, the purity of the oils and fats used being to a considerable extent a measure of the stability of the finished product. Any perfumes used should be stable, unaffected by alkalies, and containing no injurious impurities.

The soap should be exposed to light, natural or artificial, as little as possible, and wrapped to withstand the most active light rays. It should be stored in a cool temperature. As copper is an accelerator of oxidation, its use in contact with the soap in the process of manufacture should be avoided. Where copper tanks, etc., are in use, chromium-plating is recommended.

A large number of ingredients have been recommended for addition to the soap base to prevent oxidation. Most of these are reducing agents which tend to fix the oxygen, and so prevent the development of oxy-acids. Among the additives suggested are the sodium salts of amino-benzene-sulfonic acids, or the acids themselves; the derivatives of polyhydric phenols which contain hydroxyl groups together with ethyl ether and ethyl groups; methylhydroxybenzoate and hexamethylenetetramine, with which lecithin may be effectively combined; sodium lauryl-sulfonate and sodium cholate; and the higher esters of para-oxy-benzoic acid.

Well-known antiseptic bodies tend to prevent rancidity, e.g., thyme oil, phenol, cassia oil, clove oil, eucalyptus oil, rosemary oil, lavender oil, salicylic acid and salicylate, boric acid and borate, cresylic acid and cresylate.

ANHYDROUS ALCOHOL FOR LITHOGRAPHY

(*Continued from preceding page*)

hydrous alcohol is essential to the success of the process as ordinary 188 proof alcohol contains sufficient water to soften the glue resist and allow penetration by the acid with disastrous results.

Ansol M, essentially an anhydrous denatured alcohol but free from the usual permit restrictions surrounding the use of specially denatured alcohol, is recommended in the report as a satisfactory product for this use. Ansol M is manufactured by the U. S. Industrial Chemical Co., Inc., and is readily available to the lithographer for this purpose in convenient size packages of 1, 5 and 54 gallons. Further particulars may be obtained by writing this company.

UNUSUAL ALCOHOL DERIVED CHEMICALS

This is the first of a series of articles on some of the more unusual chemicals manufactured by the U. S. Industrial Chemical Co., Inc., using alcohol as the basic raw material.

Ethyl Chlorcarbonate

Ethyl chlorcarbonate, because of its molecular structure, is particularly well adapted to organic synthesis. It is the chlorcarbonic acid ester of ethyl alcohol and is produced by reacting phosgene gas with anhydrous ethyl alcohol.

Ethyl chlorcarbonate has been produced on a commercial scale exclusively by the U. S. Industrial Chemical Co., Inc., subsidiary of the U. S. Industrial Alcohol Co., for several years. Part of the production is used within the U. S. I. plants as an intermediate for reacting with anhydrous ethyl alcohol to produce diethyl carbonate but considerable tonnage finds its way into the consuming trade. It is confidently expected that many new commercial uses for ethyl chlorcarbonate will be developed when its characteristics and working properties are fully investigated.

Characteristic Chemical Reactions

A few of the characteristic chemical reactions of ethyl chlorcarbonate are as follows:

Formation of higher and mixed carbonates (introduction of the $COOC_2H_5$ group): Ethyl chlorcarbonate can be the base for mixed carbonates, one radical of which is ethyl (e.g. ethyl butyl carbonate). Ethyl phenyl carbonate would be another.

As an alkylating agent: Ethyl chlorcarbonate is an effective agent for completing the esterfication of acids: Ethyl acid sulphate reacted with ethyl chlorcarbonate yields diethyl sulphate.

Combinations with ammonia and organic bases: Ethyl chlorcarbonate reacts with ammonia to yield urethane—and with anilin to give phenyl urethane.

The literature contains many additional references to syntheses of chemical products derived from ethyl chlorcarbonate. For those interested a list has been compiled which is available on request.

Improvements in equipment, design and experience in manufacture have resulted in greater yields and consistent reductions in price, which now make ethyl chlorcarbonate available at a very moderate cost.

TECHNICAL DEVELOPMENTS

A patent has been issued for an **acid toothpaste** consisting essentially of a silica-water-glycerine gel. Durability and uniformity in the product are obtained by a combination of colloid-grinding and setting the temperature to between 40° and 70° C. The process transforms the gel into a sol, which is retransformed into a gel by cooling during slow stirring.

* * *

The Vitamin A potency of fish liver oils may be measured by means of a new spectrophotometric instrument, it is reported. Measurements are made visually from a sample of the oil dissolved to a known concentration in chloroform, with a photometric comparator whose scale gives readings that are a direct measure of the Vitamin A chromogen content. No special skill, training or color judgment on the part of the observer is required.

* * *

A simple test for the presence of water in anhydrous alcohol is to mix one volume of the alcohol in 20 volumes of gasoline. If water is present in any appreciable quantity it will separate and the mixture will be cloudy.

* * *

Face creams with antiseptic or germicidal properties are now being offered to the public. Chlorthymol, para-oxy-benzoic acid esters, and phenyl mercury nitrate and chloride are among the ingredients recommended as suitable to add to the cream.

* * *

Haemoglobin determination is among the latest uses for which the photoelectric cell has been employed. Based on the laws of light transmission of substances, utilizing light rays from a constant source of illumination, a newly developed instrument enables a busy laboratory technician to run through hundreds of blood samples quickly and accurately.

* * *

As an industrial adsorbent, activated alumina is now being offered to the trade. Inert, available in large quantities, it is said to completely adsorb moisture from gases, liquids and solids. Its characteristics are said to make it suitable for many new uses in industry and it is claimed that it can be repeatedly reactivated without deterioration.

* * *

Amyl-meta-cresol, now being manufactured on a commercial scale, is recommended for use in liquid germicides, as a mould preventive and as a germ inhibitor. Its vapors inhibit the growth of bacteria and in many instances kill them. It is relatively insoluble in water, but is soluble in alcohol, acetone and alkali. Over-concentration of alkali must be avoided, however, as it tends to diminish the germicidal effect of the amyl-meta-cresol.

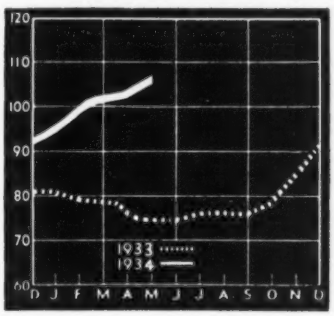
* * *

A pressure filler, designed for the filling of pastes, greases and semi-plastic materials into open top containers, is now offered to the trade. The material is fed into a double hopper where an inside sleeve forces it into spiral conveyors and these in turn deliver it through an automatic valve into the container. Of compact construction, motor, scales, and conveyors are all incorporated in the unit.

ALCOHOL NEWS

AUGUST ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1934

ETHYL ALCOHOL PRODUCTION



(*moving twelve month averages, 1931=100*)

			1934	1933
PRODUCTION				
1000 proof gals.	Jan.-May		66,088	41,487
	May		13,478	9,149
	April		12,731	9,011
SALES				
1000 proof gals.	Jan.-May		55,518	38,138
	May		11,685	9,044
	April		9,946	6,667

MAY ALCOHOL SALES ABOVE '31 AVERAGE; PRODUCTION AGAIN UP

May figures for both sales and production of ethyl alcohol continued their sharp upward trend which has been maintained since September 1933. Sales for May broke through the 1931 average of 100 to reach a figure of 101.5 compared with 99.5 for April, and the index number for production advanced to 107.5 for May from the April figure of 104.6. At the present time, both production and sales are approximately 50 per cent. above the comparable statistics for last year.

The increase in the spread between the figures for sales and production does not necessarily indicate that the supply of alcohol is more than temporarily getting ahead of the demand, as production is usually stepped up at this time of year to prepare for heavy withdrawals of completely denatured alcohol for anti-freeze.

COMMERCE DEPARTMENT RELEASES NEW WORLD CHEMICAL SURVEY

A world survey of chemical and allied products developments, entitled "WORLD CHEMICAL DEVELOPMENTS IN 1933 AND EARLY 1934", has just been released by the Commerce Department, according to advices from C. C. Concannon, Chief of the Commerce Department's Chemical Division. This booklet covers 27 countries and is prepared in large part from materials supplied by Consuls and Trade Commissioners stationed in the countries dealt with. The full range of chemicals, dyes, drugs, proprietary medicines, toiletries, paints, fertilizers, and allied products is covered in the bulletin.

This booklet which consists of 94 pages, may be obtained from the Superintendent of Documents, Washington, D. C., or from any of the Bureau of Foreign and Domestic Commerce District Offices, located in principal cities throughout the country at a charge of 10 cents per copy.

LOW SURFACE TENSION MOST DESIRED IN ACTION OF COSMETICS

The effectiveness of many toilet preparations and antiseptics depends to a large extent upon a low surface tension, according to a leading cosmetic chemist. Surface tension is the force which causes the molecules at the surface of a liquid to draw together. Roughly, it can be compared to a weak or strong surface film.

Now, when a liquid is applied, to the skin for cosmetic or antiseptic effect, it should come into intimate contact with the entire surface and penetrate the pores deeply. Too high a surface tension prevents this action. The solvents used in the cosmetic industry vary considerably in this important property, but are rarely measured accurately for surface tension. This can be done, however, easily and quickly with a tensiometer.

The surface tensions of several of the generally used solvents at approximately room temperature are:

Solvent	Dynes per cm.
Ether	16.8
Ethyl Alcohol	21.7
Methyl Alcohol	23.0
Acetone	23.3
Turpentine	27.1
Benzene	29.4
Olive Oil	33.5
Glycerine, Pure	65.2
Water	72.8

From the above table it will be seen that ether and ethyl alcohol have the lowest surface tensions. This is one of the reasons alcohol is so widely used as a solvent in the manufacture of cosmetic creams and lotions.

IODINE SOLUTION FOR ANTISEPSIS TO BE INCLUDED IN NEXT U. S. P.

A new iodine solution has been adopted for inclusion in the forthcoming revision of the United States Pharmacopoeia to provide a preparation which shall be used specifically for antisepsis.

Iodine has long been used externally as a counter-irritant. However, the difficulty involved in the use of the official preparations is due to the fact that being intended primarily as counter-irritants, they are therapeutically contra-indicated for wound treatment, and when used for antiseptic purposes, their irritating properties prejudice users against iodine preparations for everyday use for antisepsis.

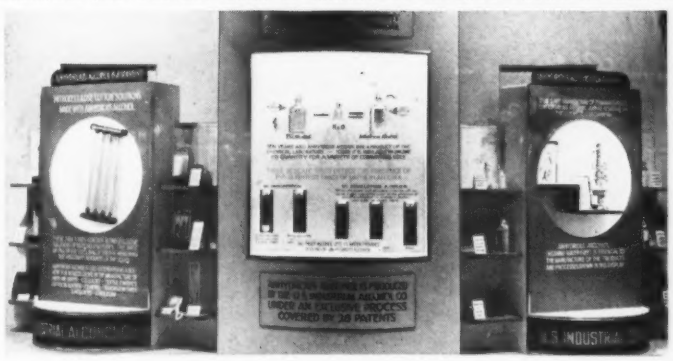
The formula for the new preparation is as follows:

Iodine	20 gm.
Potassium Iodide	24 gm.
Diluted alcohol U.S.P. q.s. to make	1000 cc.

In determining the strength of this preparation preliminary bactericidal study of various strengths of iodine was made. A two per cent. solution was found to answer all practical purposes when compared with both other strength iodine solutions and also with popularly used commercial antiseptics.

Also, after a close and careful examination of many various solvents from the standpoints of irritation, penetration and stability, ethyl alcohol was found to be the most satisfactory solvent for iodine providing optimum conditions in respect to these factors.

CHEMICAL AND SOLVENT USES OF ANHYDROUS ALCOHOL SHOWN IN EXHIBIT



Some of the outstanding solvent and chemical properties of Anhydrous Alcohol are graphically displayed in the Educational Exhibit of the U. S. Industrial Alcohol Co., maintained on 42nd Street, New York City.

The center panel of the display explains the nature of Anhydrous (water-free) Alcohol and states that the removal of the 5 per cent. of water in ordinary alcohol gives it unusual solvent and chemical properties. Delicate tests used to detect the presence of a slight amount of water in alcohol are also illustrated.

The solvent properties of anhydrous alcohol for nitrocellulose, oils and resins are shown in the left hand panel. Considerable attention is attracted by the four glass tubes mounted in the circle on this side. They are filled with A. S. nitrocellulose solutions of varying viscosities and each contains a steel ball. The tubes are rotated and the balls drop with varying speeds. Everyday products in which anhydrous alcohol is employed as a solvent in their manufacture, including airplane dopes, celluloid, textile finishes, artificial leather, special cements, transparent paper, lacquer and linoleum, are illustrated.

The chemical uses of anhydrous alcohol in the laboratory and in commercial manufacture are displayed on the right hand side. A mounted cross-section of a human brain illustrates the use of anhydrous alcohol in preserving and dehydrating, cutting sections for microscopical work. Some of the commercial processes dependent on anhydrous alcohol as a chemical shown, include: manufacture of Phenobarbital—an important hypnotic and sedative; extraction of Antigen from dried beef-heart; in the manufacture of fine chemicals; in the preparation of certain dyes and stains; and in the manufacture of SUPER PYRO, U.S.I.A's. anhydrous automobile anti-freeze.

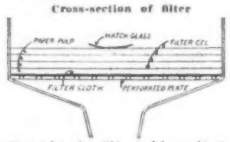
Published Monthly by the U. S. Industrial Alcohol Co.

FRUIT JUICE FILTRATION METHOD FOR GENERAL LABORATORY USE

The Research Laboratory of the California Fruit Growers Exchange developed a method for the large-scale laboratory filtration of fruit juices which has been successfully applied to a variety of products, such as pectin solutions, tannin extracts and aqueous extracts of plant material.

The filter consists of alternate layers of paper pulp and diatomaceous earth, resting upon a piece of muslin at the bottom of a Buchner funnel. Layers may be removed successively when the filter tends to clog.

Cross-section of filter



The liquid to be filtered is agitated with an appropriate amount of "filter aid." In order not to disturb the mat when pouring the mixture onto the filter, it is recommended to place a watch crystal in the center and to pour upon it. Filtration is begun with only as much vacuum as is required to maintain a flow through the mat. Suction is increased gradually as the mat clogs.

Extremely clear filtrates, and a relatively rapid rate of filtration, are claimed for the method.

COD LIVER OIL AS A THERAPEUTIC

Cod liver oil is reported to have definite therapeutic qualities. The report, published as the result of three years experimental work with cod liver oil as a dressing for wounds, states that the oil when combined with other fats to make a semi-solid ointment, appears to speed up the healing of wounds.

Whether or not there is any connection between these results and the high concentration of vitamins A and D is not known although it is considered a possibility.

N.Y. STATE ALCOHOL PERMITS

Regulations have been issued by the New York State Liquor Authority regarding the issuance of permits as provided for in Section 91 and Section 92 of the Alcoholic Beverage Control Law (Chapter 478 of the Laws of 1934).

Applications for the *industrial alcohol permit* as provided for in Section 91 of this Law should be made on Form 102 (1934). Applications for the *alcohol permit* as provided for in Section 92 should be made on Form 103 (1934).

UNUSUAL ALCOHOL DERIVED CHEMICALS

This is the second of a series of articles on some of the more unusual chemicals manufactured by the U. S. Industrial Chemical Co., Inc., using alcohol as the basic raw material.

Diethyl Oxalate

Diethyl Oxalate is an important alcohol-derived chemical produced by the conventional esterfication process using ethyl alcohol and oxalic acid with subsequent purification to the final quality by special equipment and technique. It is capable of use in many directions and at present enters into the three following major fields of application:

1. **As a dye intermediate** for conversion into sodium ethyl oxalacetate (also produced and sold by the U. S. I. C.) which is used in the manufacture of Tartrazine dyes.

2. **As a raw material in the manufacture of pharmaceuticals,** particularly Phenobarbital, a hypnotic and sedative, and other barbituric acid derivatives.

3. **As a constituent of nitrocellulose lacquers** in which Diethyl Oxalate finds application because of its very satisfactory solvent power, high boiling point and mild odor. Because of its relatively high price as a solvent, use in this field is limited to special applications, as, for example, in the radio tube industry where it is employed in the manufacture of special lacquers used to fix the rare earth salts to the cathode.

In addition to the above specific applications, Diethyl Oxalate lends itself readily to synthesis and it may, therefore, be anticipated that many additional diversified uses will be found for the product in the future.

Recent scientific investigations conducted in the Research Laboratory of the U. S. Industrial Chemical Co., Inc., have resulted in a number of important improvements in the process for the manufacture of Diethyl Oxalate; affecting both the quality and the production cost of this chemical.

These improvements have yielded a Diethyl Oxalate of unusually high quality. The high boiling impurities have been eliminated, giving a product of narrow distillation range; the acidity has been reduced; the stability of the product substantially improved; and the purity increased from 97% to over 99% ester content.

As a result of cost reduction effected through research, U.S.I. is now in a position to offer Diethyl Oxalate at a price which is expected to stimulate interest in the product for use in many new fields of chemical manufacture.

TECHNICAL DEVELOPMENTS

Eau de Cologne, formerly prepared by the distillation of plants, balsams and seeds now consists simply of alcoholic solutions of certain essential oils, often diluted with infusions of gums or balsams. The principal essential oils are bermagot, lemon, sweet orange, petitgrain, with neroli and small quantities of therapeutic oils such as lavender, rosemary and verbena. Infusions of benzoin, ambergris and labdanum serve as fixatives.

U S I

A synthetic surgical suture has been patented which comprises a thread of absorbable animal tissue such as that of bovine ligamentum nuchae in its original chemical state homogeneously distributed through a cellulose base material such as regenerated cellulose.

U S I

A new medicated dressing, ready to put on, comes in the form of a soft cotton pad which is said to mold itself to the shape of whatever part of the body it is applied. It may be used for either wet or dry dressings, requires no adhesive plaster and is easy to remove.

U S I

A new, acid-resisting coating material can be spread or brushed on wood, metal, linoleum and other surfaces. It is said to show remarkable resistance to ammonia, caustic solutions, acids and other chemicals, and to retain its high gloss under severe exposure conditions.

U S I

Benzene-rubber solutions according to a recent patent, are rendered capable of being sprayed by diluting them to the approximate viscosity of water by the addition of benzene, benzol, or the like, and adding protective colloids or emulsifying agents such as soaps, mineral or vegetable oils, or fats. Example: a mix consisting of 55 parts of rubber, 35 parts of zinc oxide, 3 parts of sulphur, 1.5 parts of an accelerator, and 5.5 parts of an oil is dissolved in 4 to 5 times its weight of solvent.

U S I

Phenolic antioxidants such as di- and tri-hydric phenols or their derivatives, may be used in small amounts to preserve vitamins in food or pharmaceutical products from loss of potency, according to a recently issued U. S. Patent.

U S I

A new dental preparation, said to have cleansing, preserving and hardening properties for teeth and gums, has recently been patented. Its chief ingredients are bentonite and magnesium oxide. Other ingredients are sodium fluoride, sodium phosphate, soap powder, oil of eucalyptus, gum camphor and benzoin.

U S I

Di-chlor-sulphamino benzoate of soda is described as a cosmetic antiseptic and is offered for use in cosmetics, tooth pastes, gargles, etc. It is said to have a phenol coefficient of 45 and a chlorine content of 20 per cent.

U S I

Anhydrous alcohol production in France has increased tremendously due to the success of its use with gasoline as a motor fuel. The number of plants, producing alcohol increased from 7 in 1926 to 100 in 1933 and the output increased from 11,000,000 to 99,000,000 gallons in the same period.

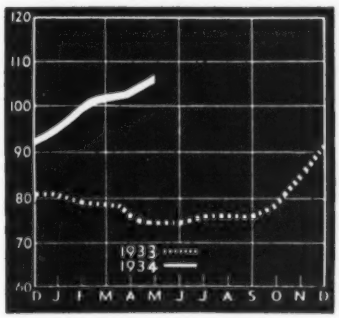
U S I

Color is the only perceptible difference in comparisons of apple and citrus pectins, the former having a slightly darker tone. Because pectins are graded according to their jellying strength, comparisons must be made between samples of the same grade.

ALCOHOL NEWS

SEPTEMBER ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1934

ETHYL ALCOHOL PRODUCTION



(*moving twelve-month averages*, 1931—100)

			1934	1933
PRODUCTION				
1000 proof gals.	Jan.-May	. .	66,088	41,487
	May	. .	13,478	9,149
	April	. .	12,731	9,011
SALES				
1000 proof gals.	Jan.-May	. .	55,518	38,138
	May	. .	11,685	9,044
	April	. .	9,946	6,667

ALCOHOL PRODUCTION AND SALES REACH THREE YEAR HIGH

Continuing the upward trend which has remained unbroken since September 1933, production and sales figures for ethyl alcohol reached the highest level attained since 1930. Market conditions are reported to be firmer and sales to both the industrial and anti-freeze trade during August compared favorably with those of July. Prices remained at the level of a month ago, no changes being reported.

INCREASED INDUSTRIAL ACTIVITY

An indication of the increased industrial activity among the larger chemical consuming industries is given by the import statistics on chemical products for the first six months of this year, recently released by the U. S. Dept. of Commerce.

An increase of 29% in the value of chemical imports was recorded; fertilizers and fertilizer products accounting for the largest single gain. Waxes, gums and resins, drugs, herbs and roots, and industrial explosives registered considerable gains in volume.

There was also an increase in the importation of medicinals, photographic developers and intermediates of coal tar origin. On the other hand, dyestuff materials and aromatic chemicals registered a decline during the period which is indicative of the trend in the United States toward self-sufficiency in the production of these items.

ALCOHOL CODE APPROVED

The approval of a supplemental code for the industrial alcohol industry as a division of the chemical manufacturing industry, was announced by N.R.A. Officials in Washington, August 22nd.

The alcohol division is governed by the labor provisions of the Chemical Manufacturing Code and the supplemental code for the division is devoted to trade practices and administrative functioning.

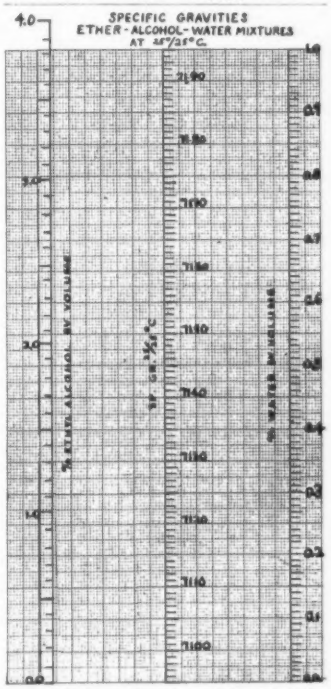
THREE GRADES OF ETHYL ETHER OFFERED BY U. S. I. FOR ALL SOLVENT AND REAGENT USES

While ether is best known for its use as an anesthetic, there are a great many important laboratory and industrial processes using this essential alcohol-derived chemical. The U. S. Industrial Chemical Co., Inc., subsidiary of the U. S. Industrial Alcohol Co., has been producing ether of a consistently high purity and uniformity for a number of years and offers three grades of ethyl ether to meet the varied requirements of these more specialized uses.

Ethyl Ether U.S.P. is the most widely used grade. It is a solvent for fats, oils, waxes, gums and resins and in combination with alcohol is an important solvent for nitrocellulose in the manufacture of artificial silk, explosives, collodions, nitrocellulose plastics and photographic emulsions. In the laboratory it is employed for fat extraction in analysis of fats, soaps, oils, etc. In the manufacture of certain dyes and polishes it is used as a solvent and it serves as a cleaning agent in the textile industry and the hat industry.

In the manufacture of fine chemicals

(*Continued on next page*)



The graph shown above is used, in conjunction with Specific Gravity determination of Ether, to reveal limits of Ethyl Alcohol and Water that may be present in Ethyl Ether. By laying a ruler or straight-edge at the point of determined Specific Gravity, the readings along the right-hand (% water) and the left-hand (% alcohol) columns show the limits of water or alcohol, or the combinations thereof, that may be present in the Ether sample. The graph was prepared from data determined on known mixtures of Ethyl Ether, Alcohol and Water at the U. S. I. Laboratory.

COMMERCIAL APPLICATION OF HIGHER ALCOHOLS EXPANDING; WIDE FIELD FOR RESEARCH

The commercial uses of the higher alcohols, a comparatively new field of development in modern industry, are becoming more and more important as further investigations reveal the characteristics of these compounds. Until recent years many of these higher alcohols, which are now produced commercially, were little more than "curiosity" products of the laboratory. Now, however, as the desirable characteristics of these compounds are being uncovered and their industrial utility established, considerable interest has been attracted by them.

These alcohols are the higher mono- or dihydric alcohols with a large number of carbon atoms. They are generally encountered in the form of esters of fatty acids such as palmitic, oleic or stearic. Most of these alcohols are solids at ordinary temperatures; they contain no saponifiable material in their pure state; and they are insoluble in water but are readily soluble in ethyl alcohol. The great majority of them occur naturally. From beeswax, for example, it is possible to obtain mycricyl alcohol whose formula is $C_{30}H_{61}OH$. Other representatives of this same group which contain higher alcohols are carnauba, spermaceti and wool wax.

Cosmetic Industry

The use of the higher alcohols in manufacture of cosmetics is an illustration of their commercial application. Cetyl, lauryl and stearyl alcohols are being used as a base for non-greasy ointments and have the desirable property of imparting a velvety feel to the skin. A small percentage incorporated in shaving creams is said to lower the surface tension resulting in a more permanent small-bubble lather. They are relatively stable, not reactive with other ingredients, and may be emulsified with the aid of ordinary emulsifying agents.

Lanolin alcohols, the resulting products of the saponification of lanolin, are reported to be important as a source of cholesterol.

As Soap Substitutes

Another modern extension of the utility of these substances and their derivatives is their use as soap substitutes, for penetrating, wetting and dispersing agents in leather and textile finishing. For example, salts produced from the semi-esters of lauryl alcohol have characteristic properties. Like soaps, they will lather and being fatty in character they impart a feeling of smoothness to the hands and softness to fabrics. Unlike soaps, they do not hydrolize in water and hence their solution is practically neutral. The success of their use in scouring, washing and finishing textiles has been marked and it is expected that further investigation will extend their application in this field.

In Varnish Manufacture

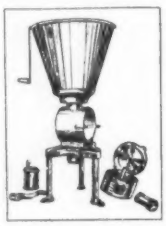
A recently patented development in the varnish industry uses the higher alcohols derived from natural waxes,

(*Continued on next page*)

Published Monthly by the U. S. Industrial Alcohol Co.

NEW HAND-POWER FILLER

The hand-power filling machine, illustrated here, was originally developed for filling ice cream but has been found to be well suited for the filling of pastes, face creams, jams, jellies, etc., and is now being offered as a general purpose filler for all kinds of semi-solid products.



The cut shows the filler with cover, drum, nozzle and handle removed to show simplicity of the design. The various parts are made of non-corrosive metals and the machine may be taken apart easily and quickly for cleaning.

Operation is by turning the crank a half turn at a time, in opposite direction each time. Containers ranging from two to thirty-two ounces can be filled by the use of different nozzles and plungers.

ETHER AS SOLVENT AND REAGENT

(*Continued from preceding page*)

and pharmaceuticals ethyl ether is employed for purification by extraction and crystallization; it serves as a denaturant in the preparation of certain specially denatured alcohol formulas; in the wood distillation industry it is used for extraction of acetic acid from pyroligneous acid.

Ethyl Ether Commercial is sold by U.S.I. for ordinary solvent uses where strict conformance to the U.S.P. specifications is not required. Lower in cost than Ethyl Ether U.S.P., it finds considerable acceptance for the heavier industrial uses where extreme purity is not of paramount importance.

Absolute Ether (A.C.S.) is ethyl ether free from alcohol and water within the limits set by the American Chemical Society. Because of its high purity and more complex method of production, the resulting higher cost restricts it mainly to laboratory reagent uses where it is employed in institutional and industrial research and control work.

HIGHER ALCOHOLS

(*Continued from preceding page*)

together with fatty oil distillation residues in the manufacture of varnish. The fatty oil residues, containing as they do fatty acids, esterify the alcohol and the wax is thus reformed in the residue. Ceryl, carnaubyl and melissyl alcohols are said to be applicable for this purpose and the varnish thus prepared is said to be quick-drying, elastic and water-proof.

Larger commercial utilization of the higher alcohols may be expected from further research and investigation.

UNUSUAL ALCOHOL DERIVED CHEMICALS

Diethyl Carbonate

Diethyl carbonate, the diethyl ester of carbonic acid, is classed among the more unusual chemicals derived from ethyl alcohol. As the only domestic commercial manufacturer of this product, the U. S. Industrial Chemical Co., Inc., employs an exclusive process which was developed by its own technical staff more than a decade ago. Continuous improvements in design and operation of equipment have resulted in a product of exceptionally high purity and uniformity.

Because carbonic acid is not reactive with ethyl alcohol, diethyl carbonate cannot be made by the usual esterification process. It is necessary to go through a series of steps in its production; first producing ethyl chlorcarbonate (described in the July issue). This in turn is reacted with anhydrous ethyl alcohol to make crude diethyl carbonate, which is neutralized and redistilled.

Applications

Diethyl carbonate is a medium boiling solvent for nitrocellulose having the valuable features of mild odor, stability and extremely low acidity. Because the acidity is the smallest trace of carbonic acid, it is considered as nearly neutral a solvent as is possible to make. The use of diethyl carbonate is limited and specialized owing to its necessarily high price when compared with the usual nitrocellulose solvents. Where a pure neutral lacquer solvent is required, however, diethyl carbonate is most serviceable.

*Diatol**

Diatol is pure diethyl carbonate containing about 10% unconverted anhydrous alcohol. The extra alcohol content in Diatol contributes markedly to quicker solvent action, better blending and flow. It finds its chief use in lacquer formulation where first cost is not of prime importance and the valuable characteristics of good solvent power, mild odor low acidity and stability are needed. It has found important use in the radio tube industry. The rare earth coatings are applied in a lacquer and it is most important that the solvents be slow evaporating, neutral and free from residue. In these respects, Diatol fills all requirements.

**Trade name Reg. U. S. Pat. Off*

TECHNICAL DEVELOPMENTS

The addition of a small percentage of **pectin** to the regular type of cosmetic creams is said to cause them to absorb a much larger proportion of water. The resulting emulsion is oil in water and can be produced in any consistency.

U S I

Alcohol is used in making stable garlic extract from the fresh garlic according to a recently published formula. The fresh garlic is comminuted, then macerated for 8 days with an amount of alcohol equal to its own weight. Residual garlic is pressed, the juice filtered and mixed with sugar syrup. Another process uses 40 parts of shredded garlic to 100 parts of alcohol. When finished the clear extract may be poured off and is said to remain stable for years.

U S I

Mild sedative action is claimed for floral waters produced as by-products from the steam-distillation of certain flower oils. For example: rose and orange flower waters used in laboratory experiments exercised a braking action when passed through the isolated heart of a frog.

U S I

Another aromatic now being produced commercially is the iso-butyrate of phenylethyl alcohol. It is said to be mild and delicate in character, with great carrying and lasting power. It is said to be valuable not only in compounds of all types from the finest to the cheaper cosmetic perfumes, but particularly in soap since it is absolutely stable in the presence of alkalies and is very lasting.

U S I

Surgeons' gloves, the surface of which has been subjected to a "frosting" process, are said to provide a firmer grip on instruments, sutures and ligaments than rubber gloves of the ordinary type.

U S I

Swordfish liver oil, according to a report by the U. S. Bureau of Fisheries, contains 75 to 100 times as much Vitamin D as that contained in the U.S.P. standard codliver oil and from 15 to 25 times as much Vitamin A. Swordfish oil extracted by the use of solvents is said to have a higher vitamin content than that obtained by mechanical extraction.

U S I

Alcohol is used in precipitating a serum from blood and in the sterilization of the serum which is used in making a new substance for the treatment of cancer, according to a recent British Patent.

U S I

A process for making solid perfumes in which melted acetanilid is mixed with magnesium or zinc oxide or zinc carbonate, and aromatic crystalline substances added, such as heliotropin or coumarin, is the subject of a Russian Patent. Beeswax with stearin or sodium soap may also be added, and finally synthetic aromatics and essential oils are incorporated.

U S I

An essential oil is reported to be found in the dried leaves of *Artemisia tridentata typica,* (black sage). The oil is said to contain about 5% artemisal, 20% alpha-pinene, 7% cineole, 40% levo-camphor, 12% unidentified sesquiterpenes and 16% resins.

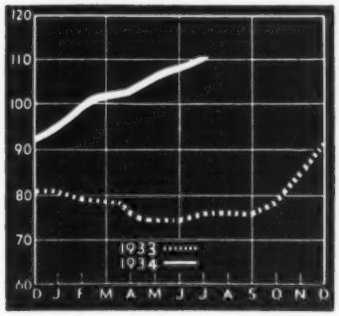
U S I

A newly patented **germicide** is a phenol derivative with a phenol coefficient of about 40. Besides having high germicidal power, the new product is stated to be relatively non-poisonous and non-irritating to the higher organism.

ALCOHOL NEWS

OCTOBER ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1934

ETHYL ALCOHOL PRODUCTION



(moving twelve-month averages, 1931=100)

			1934	1933
PRODUCTION				
1000 proof gals.	Jan.-July		92,788	73,859
	July		13,702	11,684
	June		12,998	10,683
SALES				
1000 proof gals.	Jan.-July		78,970	56,954
	July		12,693	9,345
	June		10,759	9,471

ALCOHOL PRODUCTION CONTINUES UPTREND: SALES RECORD GAINS

Production and sales of ethyl alcohol for July, reported by industrial manufacturers, continued to reflect improvement. July sales of 12,693,000 proof gallons showed gains of 1,934,000 proof gallons over June, and 3,348,000 proof gallons over sales for July, 1933. The increase in production was slightly less, thus serving to hold the supply well in line with the demand.

Business on completely denatured alcohol for the account of the anti-freeze trade continued to be booked during the past month, although at a slower rate than in August and July. Reports of business improvement among the consumers of specially denatured alcohol are substantiated by figures on the withdrawals of this product.

Figures covering the output of methanol for the first six months of this year indicate that production of both the wood distillation and synthetic products has also increased.

DOMESTIC IODINE PRODUCTION UP

Iodine, a product which until recent years has been obtained almost entirely from foreign countries, is now produced in appreciable volume from domestic sources, according to a news bulletin from the Department of Commerce. Chile has been the chief foreign source where iodine is obtained as a by-product of nitrate manufacture while a certain amount has been imported from Japan where it is extracted from seaweed. Until 1928 only small amounts of iodine had been produced from domestic sources, but during that year marketable amounts were produced from oil-well brines.

Iodine has many uses, chief of which perhaps is in medicine and surgery, and in the manufacture of chemicals. Other uses include water treatment, for admixture with salt, as an ingredient in the manufacture of soaps and dyes, and as a denaturant for certain specially denatured alcohol formulas.

NEW U. S. I. WAREHOUSE AND DENATURING PLANT IN CHICAGO WILL SERVE MIDDLE WEST

New Distribution Center Will Carry Full Line of Alcohols and Chemicals: St. Louis & Louisville Facilities Expanded

A completely equipped denaturing plant for the production of all authorized specially and completely denatured alcohol formulas was opened by the U. S. Industrial Alcohol Co., in Chicago on August 15th. The plant also provides warehouse facilities for carrying stocks of all products manufactured and sold by U. S. I.

Located in the center of the Chicago industrial district, it will serve as a major distribution point for both alcohols and chemicals and enable U. S. I. to extend additional service to the large number of alcohol-consuming industries located throughout the entire middle western area.

Complete in every detail, all authorized denatured alcohol formulas will be kept on hand or made up on order to take care of immediate shipments. Bulk storage tanks as well as equipment for handling all standard containers are available. As the output of the plant is only limited by the time required for the actual denaturing and mixing operations, U. S. I. will be able to give prompt delivery on all of its products in any commercial quantity. Another section of the plant provides bonded storage facilities for carrying bulk stocks of ethyl alcohol which will be supplied direct from the two largest U. S. I. manufacturing plants at Baltimore and New Orleans.

Stocks of Chemicals and Solvents

A full line of solvents and chemicals manufactured by the U. S. Industrial Chemical Co., Inc., will also be stocked at the plant. Anhydrous alcohol, ethyl acetate, butyl acetate, Ansol PR and Solox are among the products stored in bulk.

Operations of the plant are under the supervision of F. J. Rich, who was formerly in charge of U. S. I.'s grain alcohol plant at Peoria, Ill. Actual denaturing operations are carried out in eleven large denaturing tanks under the same rigid control exercised in all U. S. I. plants.

Local deliveries within the Chicago

(Continued on next page)

33.5% INCREASE IN OUTPUT OF DENATURED ALCOHOL IN YEAR

Production figures for ethyl alcohol reported by industrial alcohol manufacturers for the fiscal year ending June 30, 1934, show marked gains over the preceding period. Particularly favorable is the increase in the production of denatured alcohol which amounted to 82,240,853.58 wine gallons for the year just closed, a gain of 33.5% over the figure of 61,600,346.70 wine gallons for the year ending June 30, 1933, and also represents a substantial increase over the 1931-32 report of 78,329,517.34 wine gallons.

Production of ethyl alcohol at industrial alcohol plants for these three fiscal years was 165,106,618.94 proof gallons for 1934, 115,609,754.29 proof gallons for 1933, and 146,950,912.76 proof gallons for 1932.

Due to the wide range of uses denatured alcohol, particularly specially denatured alcohol, has directly or indirectly in the manufacture of thousands of commercial products, the report should serve as an index of the improvement of business in general during the period covered.

Synthetic rubber is now being used in the manufacture of aprons, gloves, sleeves, etc., for protection against all types of petroleum products, alkalis and many chemicals. It is reported that hot or cold oils, gasoline, naphtha, or hot or cold caustic will not affect it and that sulphuric acid has less effect on it than on natural rubber.

AN INTERIOR VIEW OF THE NEW U. S. I. DENATURING PLANT, opened in Chicago, August 15th. A row of large storage tanks for bulk stocks of the principal denatured alcohols and solvents may be seen on the left, and an automatic filler for small packages is shown in the center. INSERT: A corner of the new plant showing office and loading platform for making local deliveries by Company-owned trucks.

Published Monthly by the U. S. Industrial Alcohol Co.

SOLUBILITY OF PERFUME AND COSMETIC PRODUCTS IN ALCOHOL

The following table of the solubility of various perfume and cosmetic ingredients in alcohol, intended to serve as a guide, gives only practical indications and not exact physical constants. Column 1 gives the parts of alcohol required to dissolve one part of the product by weight. Column 2 shows the strength solution of alcohol required.

Product	Column 1	Column 2
Acetate, Benzyl	1.5	70%
" Bornyl	2.5—3.5	70%
" Geranyl	7 —8.5	70%
" Linalyl	3 —5	70%
" Terpinyl	4.5	70%
Alcohol, Benzyl	1	50%
" Cinnamic	3.5—4.5	50%
" Phenyl Ethyl	2	50%
" Phenyl Propyl	3	50%
Aldehyde, Cinnamic	1.5—2.5	70%
Anthranilate, Methyl	2.5—3.5	70%
Aubepine	6 —6.5	50%
Benzoate, Benzyl	7.5	80%
" Ethyl	6 —7	60%
" Methyl	3.5	60%
Cinnamate, Ethyl	4 —6	70%
" Methyl	1.5	70%
Citral	7	60%
Citronellal	5	70%
Citronellol	4	60%
Coumarin	8 —9	70%
Dimethylhydroquinone	8 —9	95%
Eugenol	4.5—5	50%
Geraniol Pure	2.5—3.5	60%
Heliotropine	10	70%
Irisone Pure	2.5—3	70%
Isoeugenol	4.5—5	50%
Laurine	6.5—7	30%
Linalool	4 —5.5	60%
Methyleugenol	3.5	60%
Musk Ambrette	60	95%
" Ketone	80 —100	95%
" Xylol	200	95%
Phenyl Acetaldehyde	2.5	70%
Rosacetol	20 —22	95%
Salicylate, Amyl	2.5	90%
" Ethyl	3	80%
" Methyl	4.5—6	70%
Terpineol	3 —5	60%
Toncarin	25	70%
Vanillin	5 —6	70%

—*Reprinted from the Givaudanian, June* 1934

NEW U.S.I. DENATURING PLANT

(*Continued from preceding page*)

industrial area are made by Company-owned trucks. Rail connections direct to the plant are employed in making shipments to more distant points.

St. Louis and Louisville Facilities Enlarged

Warehousing and handling equipment have also been expanded in both St. Louis, Mo., and Louisville, Ky., to allow bulk storage and shipments of carload quantities of all products in large commercial demand.

Thus aside from being important factors in the efficient distribution of the Company's products, these facilities will enable U. S. I. to render superior service to this large industrial and manufacturing market of the United States.

UNUSUAL ALCOHOL DERIVED CHEMICALS

This is the fourth of a series of articles on some of the more unusual chemicals manufactured by the U.S. Industrial Chemical Co., Inc., using alcohol as the basic raw material.

Ethyl Acetoacetate

The structure of ethyl acetoacetate, which permits great latitude in chemical reactions, is responsible for the wide interest in this product. Also, it is this quality which proves of greatest value in the preparation of dyestuff and pharmaceutical intermediates.

Ethyl Acetoacetate is the ethyl ester of aceto-acetic acid and is also known as aceto-acetic ester. It is prepared commercially by reacting pure ethyl acetate with metallic sodium in specially designed equipment, followed by stages of isolation and purification by vacuum distillation.

It is in substantial commercial use as an intermediate in the manufacture of dyes of the Pyrazolon and Hansa Yellow groups, and in the pharmaceuticals, Antipyrine and Amidopyrine. It is also recognized as a promising raw material in the chemical laboratory where it may be used in the synthesis of many organic compounds, and it is confidently expected that further investigation of its possibilities will result in the extension of its industrial uses.

Two properties make ethyl acetoacetate important in chemical synthesis:

1. The reactivity of the hydrogen on the carbon adjacent to the $COOC_2H_5$ group. Hydrogen substitutions at this point lead to the introduction of one or two groups, such as, halogen, metal, acyl and alkyl radicals. Ammonia, anilin, urea and many compounds containing the NH_2 group, add with the elimination of water.
2. The addition products (especially the amino derivatives) mentioned above have a tendency to close into ring structures of the most varied types, giving for example substituted pyrrols, pyrazols, pyrimidines, pyridines, quinolines, isoxazols, furane and coumarin derivatives.

These properties will serve as illustration of the possibility ethyl acetoacetate offers for further research toward the development of new commercial uses.

The U. S. Industrial Chemical Co., Inc., has been the foremost domestic producer of ethyl acetoacetate for more than a decade. During this period, market improvement in quality and manufacturing economies—which have resulted in price reductions, have led to domestic manufacture on a tonnage scale and rendered American Dyestuff and Pharmaceutical industries independent of foreign sources.

TECHNICAL DEVELOPMENTS

A new perfume ingredient recently placed on the market is said to produce the effect of the higher aldehydes and at the same time be easier to use with equally good results.

U S I

The synthesis of Vitamin C is now perfected to the point where it may be produced commercially. Thus with Vitamin C more readily available than formerly, it is expected that systematic research will be employed to ascertain its full therapeutic possibilities. The new synthetic product is said to have the same composition as the natural Vitamin C.

U S I

Hair lotions should contain 55-65% alcohol to obtain best lathering power according to a recent article on the subject. In any case the alcohol content should not be less than 40% where good lathering is desired.

U S I

The use of beeswax in certain cosmetic creams for therapeutic treatments is said to serve as a protective agent for the skin against water and air. It is also said to be important in imparting a high quality appearance to cold creams.

U S I

A combination bandage and plaster made of crepe rubber has been introduced abroad. It is claimed that it will keep well at ordinary temperatures, is porous and extensible in all directions.

U S I

To prevent the oxidation of fats and oils, a contributing cause of rancidity in creams and ointments, one authority recommends the use of Oil of Guaiac Wood. In addition to being an anti-oxidant, it is reported to be non-irritating and non-toxic and also a good fixative for rose perfume.

U S I

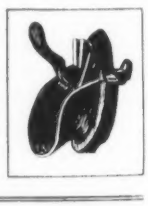
High alcohol concentration is desirable in mouth washes containing hydrogen peroxide because it increases the stability of the oxygen compound. Flavoring and perfuming ingredients should be selected which are not easily oxidized. Addition of parahydroxybenzoic acid is said to aid in increasing the stability and also the antiseptic power.

U S I

Alcohol-water mixtures have been used successfully in the cooling unit of air-conditioning systems. One author, commenting on the merits of a system where 450 gallons of alcohol-water mixture are circulated per hour, states: "This mixture is used instead of the brine because it is non-corrosive (permitting copper cooling coils in the conditioners) and because it has a higher specific heat and a lower specific gravity than brine." It might also be added that it has a lower viscosity than that of the brine solution.

U S I

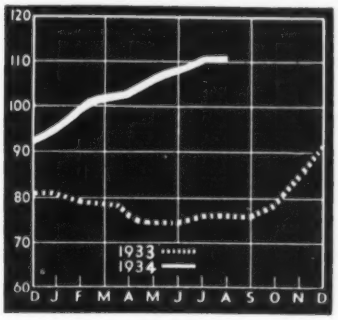
A bung spout as shown here makes a handy device for those using wooden barrels. Simple in construction it is said to eliminate waste and save time when draining barrels. Made of cast iron, hot tinned, it is inserted in the bung and fastened there by means of a hook and a wedge.



ALCOHOL NEWS

NOVEMBER ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1934

ETHYL ALCOHOL PRODUCTION



(moving twelve-month averages, 1931=100)

		1934	1933
PRODUCTION			
1000 proof gals.	Jan.-Aug.	106,611	86,341
	August	13,823	12,482
	July	13,702	11,684
SALES			
1000 proof gals.	Jan.-Aug.	92,126	67,186
	August	13,156	10,232
	July	12,693	9,345

INDUSTRIAL ALCOHOL SALES KEEP UP WITH INCREASED PRODUCTION

Production and sales of ethyl alcohol as reported by industrial manufacturers for August continued their recent gains by advancing into new high ground for the year. Above figures reveal that the gains in sales are readily absorbing the increased production of industrial alcohol, and the surplus of production over sales is considerably smaller this year to date than the same period last year.

Prices on the various industrial alcohol formulas released for the fourth quarter of 1934 showed few changes over the schedules for the preceding three months' period. Some slight revisions on prices of certain specially denatured alcohol formulas were necessitated by the shifting of denaturant costs.

Brisk demand from the anti-freeze trade was in evidence throughout the past month. Other large consumers of industrial alcohols, for the most part continued to make withdrawals for near-term requirements.

PEPPERMINT OIL EXPORTS GAIN

The foreign demand for American peppermint oil, one of the most important essential oils produced in this country, has enjoyed a considerable pickup since the beginning of the year according to a report from the Commerce Department. Exports of this flavoring material increased in value to $449,000 during the first eight months of 1934 compared with $375,000 in the same period of last year.

Although peppermint oil is produced in several foreign countries, the United States is the principal world source and the American product is recognized for its high quality and superior flavor.

This oil is used extensively in medicine and as flavoring for candies, tooth pastes, etc., as a denaturant in certain specially denatured alcohols and a large number of other products. It is one of the most useful and important of the volatile oils.

ABSOLUTE ETHYL ALCOHOL U. S. P. REPRESENTS PERFECTION OF ALCOHOL MANUFACTURE

A Product of Extreme Purity, Conforming to the U. S. P. Specifications, Ethyl Alcohol Absolute Is Commercially Available to All Users

The highest perfection in ethyl alcohol manufacture is achieved in Absolute Ethyl Alcohol U.S.P. As produced by the continuous distillation process of the U. S. Industrial Alcohol Co. it conforms to the most rigid standards of purity and uniformity, and is available in any commercial quantity from cases of pint bottles to tankcars.

In former years, and to a limited extent even at the present time, each laboratory produced its own absolute alcohol by treating 190 proof alcohol with calcium oxide (quick lime), and redistilling; a method both costly and uncertain in the quality of the resulting product.

This method was rendered obsolete by the development of the exclusive U. S. I. continuous process. Now, ethyl alcohol absolute made by U. S. I., in addition to conforming to all specifications of the U. S. Pharmacoepia, meets these supplemental specifications:

ACIDITY: Free acid as acetic, not more than 0.0015 gm. per 100 c.c.

CORROSION: Does not show rust on bright drum steel within 48 hours.

NON-VOLATILE MATTER: Not more than 0.0025 gm. per 100 c.c

ODOR: Free from foreign odors when tested at high or low proof.

PURITY: Not less than 99.87% ethyl alcohol by volume.

REDUCING SUBSTANCES: Not less than 25 minutes permanganate time.

SPECIFIC GRAVITY: At 15.6°/15.6° C.—not more than 0.7944.

This product, which is now available at only a moderate cost over the regular 95% pure ethyl alcohol, is extensively used in industrial research and analytical work where extreme purity and uniformity are essential. Hospitals employ it for many scientific and medical needs.

For industrial work requiring large quantities of alcohol free of water, anhydrous denatured alcohol is generally used. Further information concerning the uses and withdrawal of this product may be obtained by writing directly to U. S. I.

MEDICINAL AND TOILET GOODS INDUSTRIES SHOW IMPROVEMENT

Raw Material Imports Up

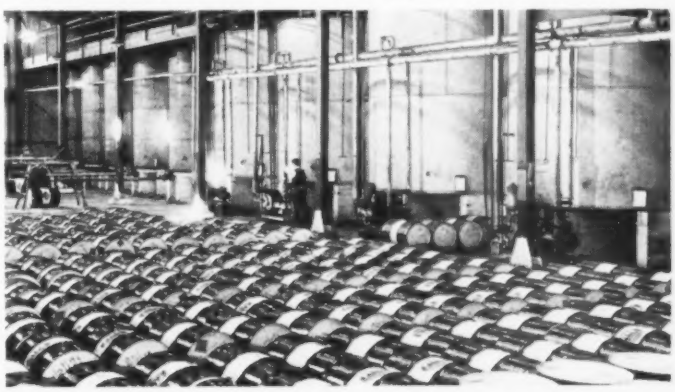
Increased production in the medicinal, cosmetic and toilet requisite industries has been evidenced since the first of the year by the increased imports of raw materials used in these industries according to advices from the U. S. Department of Commerce.

Perfume, cosmetics and other toilet preparations led this group of industries in the value of production for 1933 with an output valued at $108,233,000; followed by patent and proprietary packaged medicines valued at $104,626,600; pharmaceutical and galenical preparations, $94,063,600; patent or proprietary compounds, $33,402,400; and biological products, $19,597,000.

Perfume Materials Gain 98%

Increased activity among these industries since the beginning of 1934 is indicated by heavy imports of raw materials. Imports of perfume materials increased 98 per cent to a total value of $1,069,000 during the first eight months of the year compared with the same period of 1933; essential oils advanced 50 per cent to $2,859,200; and crude drugs, roots, herbs and leaves were up 53 per cent to a total value of $3,825,676.

In addition to the marked increase shown in dollar value, it was pointed out that quantities, where available, also showed substantial gains.



FILLING OF STANDARD CONTAINERS AT U. S. I.'S BALTIMORE PLANT: Filled directly from the large storage tanks shown in the background, the group of 54-gallon drums all contain PYRO—The Standard Anti-freeze. This entire section is used exclusively for handling completely denatured alcohol.

Prepared Monthly by the U. S. Industrial Alcohol Co.

OLIGODYNAMIC EFFECT OF SILVER IN INDUSTRIAL USE

Industrial sterilization by minute dosages of metallic silver has come into practical use within the past few years. An article on this phenomenon which is known as the oligodynamic effect of metals, appearing in Industrial & Engineering Chemistry for September, discusses the present applications of the method to the sterilization of water and other liquids.

The metal, in concentrations so small that they are practically undetectable by ordinary analysis, exercises remarkable bactericidal power but does not affect human beings and the higher organisms.

On the use of the method for treatment of alcohol, the author states: "In addition to its germicidal activity, ionic silver in concentrations as low as 0.015 mg. per litre has a definite effect on the acid-ester ratio of alcoholic liquids. This presumably catalytic action improves the odor and flavor of raw alcohol materially and is important to both perfumery and the beverage trades . . .

Unit for treating alcohol with silver (Oxy-Esterator).

"Alcohol solutions undergo a change when charged with ionic silver which is somewhat similar to aging. This technic has been successfully applied to the alcohol used in perfumes where the alcoholic odor is lessened by the treatment. . . ."

The oligodynamic treatment of numerous fermentation liquids is said to be effective in permanently preventing clouding. Vinegar, for example, so treated will be free from living micro-organisms and be permanently bright after filtering.

The usefulness of the method has been demonstrated in many important fields. Water supplies can be completely sterilized without affecting healthfulness or flavor, and once properly dosed with silver they will remain sterile. It has been used commercially in Europe for a number of years and the first American installation was recently made for continuous treatment of water for a swimming pool in Washington, D. C.

A unique thumb-driven fan for drying finger nail polish is a novelty recently placed on the market. It is said to be more efficient and much more fascinating than the former method of waving the hands through the air.

UNUSUAL ALCOHOL DERIVED CHEMICALS

This is the fifth of a series of articles on some of the more unusual chemicals manufactured by the U. S. Industrial Chemical Co., Inc., using alcohol as the basic raw material.

Sodium Ethyl Oxalacetate

Sodium ethyl oxalacetate, another of the more unusual chemicals of alcohol origin, was developed by the U. S. Industrial Chemical Co., Inc., for the dyestuff and pharmaceutical industries.

It is the sodium derivative of oxalacetic ethyl ester and is now produced on a tonnage scale by U. S. I. by reacting pure ethyl acetate and ethyl oxalate with metallic sodium. The sodium ethyl oxalacetate produced by U. S. I. is quite stable and entirely suitable for uses where the ester might be employed.

Sodium ethyl oxalacetate has found growing employment in the production of Tartrazine and Pyrazolon dyestuffs. Its structure indicates the possibility of many organic couplings leading to whole new lines of products for which substantial use may be found when the characteristics and working properties are fully investigated.

A few of the suggested lines of endeavor and typical reactions are given below:

(1) Manufacture of dyes of the Tartrazine group.
(2) This ester adds on to ammonia and to many primary and secondary amines. The resultant products soon go over into the amines of oxalocitric acid lactone ester.
(3) If aldehydes are present when amines of certain types are condensed with oxalacetic ester, keto-pyrollidon carboxyllic acids are formed.
(4) In the presence of pyridine, ethyl oxalacetate and ethyl cyanacetate form tri-ethyl cyanaconitate.
(5) With hydrochloric acid, oxalacetic ester is converted into derivatives of alpha pyrone.
(6) Oxalacetic ester is unstable, and on heating to 150° C. for four hours oxalocitric acid lactone is formed. Dilute potassium carbonate precipitates the potassium salt of oxalacetic ester—this is stable.
(7) According to an abstract of an article by a recent investigator, oxalacetic acid is reduced by yeast to malic acid. (Chem. Abs. 25, 1898.)
(8) In the presence of pyridine or diethyl amine, 2 molecules of oxalacetic ester condense with one molecule of an acyclic aldehyde.
(9) Acetic anhydride and oxalacetic ester form acetoxyfumaric acid diethyl ester.
(10) Heated to 250-350° C., oxalacetic ester loses carbon monoxide and forms diethyl malonate. (British Patent 228, 863.)

TECHNICAL DEVELOPMENTS

A mixture of alcohol and lamp black which will not scratch the surface has been recommended as a polishing agent for automobile headlight reflectors. (Instructions state to rub from the bulb straight out and *not* to polish with a circular motion.) It is thought such a mixture might prove useful in polishing other similar surfaces.

U S I

A new mixing-machine with the body made of white acid-proof Porox is glazed inside and out. It is equipped with a direct driven motor agitator which can be easily and quickly removed for cleaning. It is said to be acid-proof, easily kept clean, and will not contaminate the finest products. It is available in 5 and 10 gallon capacities.

U S I

A method for facilitating the breakage of ampules at a desired point has recently been patented by a German concern. It involves weakening the ampule at such a point with a scratch and then coating the weakened point with lacquer or a paint and transparent material such as cellophane which is allowed to dry.

U S I

α-tolyl α-methyl glycerol ether is an example of the aliphatic-aromatic double ethers of glycerol perfume fixatives recently patented by a German concern.

U S I

Vitamins, according to a recent foreign patent, may be prepared from vegetable products such as soy beans, wheat, lemons, etc., by dialyzing the cellular vegetable tissues at a temperature not over 40°, against an organic solvent such as alcohol, or water, which has been acidified with acetic or citric acid.

U S I

A new emulsifier, specially developed to make uniform addition of vitamin D concentrate to milk, is suitable for general laboratory use in similar processes. With a reservoir capacity of one quart, it is intended for continuous operation. All parts in contact with the liquids are of aluminum.

U S I

Face powder in plastic form for use in making refills for odd-sized vanity cases has been patented. It is intended to be sold in collapsible tubes and will set into hard cakes when exposed to the atmosphere.

U S I

Glyceryl monostearate and —ricinoleate, now being produced in this country are reported to be sufficiently pure to permit their use in cosmetic, drug and food preparations.

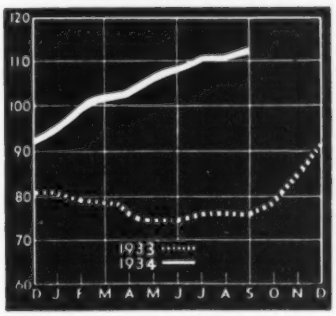
U S I

Aluminum beta-naphthol disulphonate, an antiseptic astringent, is among the newer cosmetic raw materials. Its principal use is said to be as a deodorant astringent. Used in alcoholic solution, it dries very rapidly and is claimed to be entirely harmless to vegetable fabrics.

ALCOHOL NEWS

DECEMBER ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1934

ETHYL ALCOHOL PRODUCTION



(*moving twelve-month averages*, 1931=100)

		1934	1933
PRODUCTION			
1000 proof gals.	Jan.-Sept.	122,247	100,309
	September	15,636	13,968
	August	13,823	12,482
SALES			
1000 proof gals.	Jan.-Sept.	109,947	80,454
	September	17,821	13,268
	August	13,156	10,232

SEPTEMBER INDUSTRIAL ALCOHOL WITHDRAWALS EXCEED PRODUCTION

Latest available figures on production and sales of ethyl alcohol by industrial manufacturers for the month of September show marked increases. Total output for the month reached 15,635,966 proof gallons, while during the same period, the amount withdrawn for denaturization totaled 16,456,324 proof gallons, an exceedingly favorable comparison, in which the demand from the anti-freeze trade was a major factor.

Other large alcohol consuming industries, continuing to reflect improvement in sales and earnings, have also been more active in contributing to the increase in withdrawals which has been evident since the first of the year. Detailed figures on the consumption of specially denatured alcohol during the past fiscal year, while not yet available, are expected to show considerable increase in the use of this product.

GRAPEFRUIT GIVES ESSENTIAL OILS SUITABLE FOR PERFUMES

From the U. S. Dept. of Agriculture comes the report that grapefruit may soon be used as a raw material in the manufacture of perfume ingredients. Two investigators in the department's Bureau of Chemistry & Soils have found that Florida grapefruit peel oil contains about 90% limonene, 2-3% oxygenated volatile constituents and sesquiterpenes and 7-8% waxy materials. The oil is prepared by pressing the grapefruit peel between rollers and centrifuging.

The essential oils of grapefruit rinds can be used in the manufacture of perfumes particularly violet, rose and hyacinth.

It was recently estimated that American canners use 100,000 tons of grapefruit annually, of which the rind could be utilized to yield about 50,000 pounds of essential oils.

INDUSTRIAL ALCOHOL INDUSTRY CODE OF FAIR COMPETITION APPROVED AND NOW EFFECTIVE

Makes Price Lists and Revisions Open to Inspection

The open price provisions of the Industrial Alcohol Industry Code, supplementary to the Chemical Manufacturing Industry Code, have been approved and became effective November 8th, 1934; other provisions of the Code having been in operation since their approval on August 21st, 1934.

The Code covers the sale of alcohol for both industrial and anti-freeze purposes. The "products of the Industry" as defined by the Code are: "ethyl alcohol, denatured alcohol (including the product known as 'proprietary solvent') sold for industrial purposes, and ethyl alcohol, denatured alcohol, isopropyl alcohol and methyl alcohol (other than that produced by the destructive distillation of wood), or any product containing 70% or more of any of these materials, or any product containing a combination of 70% or more of any of these materials, sold for anti-freeze purposes by any member of the Industry."

Under the Code, each member of the industry is required to file identified lists of all prices, discounts, rebates, allowances, whether guaranteed against decline in price and all other terms of sale. A similar provision has been embodied in the Code of the Hardwood Distillation Industry covering sales by members of that industry of methyl alcohol for anti-freeze.

All lists or revisions of price terms of members of the Industry are available to all members of the Industry and their customers who have applied therefor and have offered to defray expenses of the Code Authority for their preparation and distribution. All lists are open for inspection by any customer at the office of the Code Authority, 420 Lexington Avenue, New York City.

The Code Authority consists of the following members: Chairman, Glenn Haskell, U. S. Industrial Alcohol Co.; Vice Chairman, A. K. Hamilton, Penn-

(*Continued on next page*)

DR. F. J. METZGER HONORED

Dr. F. J. Metzger has been awarded the Chemical Industry Medal for 1934 for his numerous contributions to the research and application of the gases in the atmosphere. The presentation was made at a meeting of the Society of Chemical Industry, held in New York on November 9th.

Dr. Metzger is director of research of the U. S. Industrial Alcohol Co., and the U. S. Industrial Chemical Co., Inc., and is vice-president in charge of research of the Air Reduction Company.

In his acceptance speech, Dr. Metzger spoke of the gases in the atmosphere and predicted the substitution of krypton and xenon, the rarest two gases, for argon in electric light bulbs.

The Chemical Industry Medal is presented annually by the Society for the successful application of chemical research to industry.

ETHER GRAPH—CORRECTION

The graph for determining the limits of ethyl alcohol and water that may be present in any given sample of ethyl ether, printed in the September issue of ALCOHOL NEWS was incorrectly reduced in size so that all determinations could not be made accurately. A limited number of enlarged copies of this graph have been prepared and will be sent free of charge to anyone desiring a corrected copy.

SUPER PYRO Anti-freeze Featured in this U.S.I. Educational Exhibit maintained on 42nd Street, New York: The display graphically portrays the advantages of SUPER PYRO by means of two "bisected" automobile radiators. A part of each radiator is cut out and covered with glass so that the action of the SUPER PYRO in the cooling system may actually be seen. The radiator on the left illustrates the rustproof action and golden color of SUPER PYRO, while the one on the right shows how the film of oil acts in reducing evaporation. The SUPER PYRO Slogan Contest, which terminated on November 30th, is also featured.

Prepared Monthly by the U. S. Industrial Alcohol Co.

ALCOHOL SOLUTION REPORTED TO ALLEVIATE CANCER PAIN

An alcoholic solution has been used successfully to relieve the pain suffered by cancer patients, according to a news report from the Pacific Coast Society of Gynecology and Obstetrics.

At a meeting of the Society held at Oakland, California, November 22, 1934, delegates witnessed a demonstration of the new treatment. The solution of alcohol is injected into the tissues surrounding the spinal cord.

The treatment, originally developed in Germany, was described in literature sent to the Alameda County (California) Hospital. No claim was made for curative value, but the treatment seemed to be a peculiar anaesthetic for cancer pains.

NEW LAUNDRY COMPOUND REMOVES NAIL POLISH STAINS FROM LINEN

A new compound, of special interest to the larger linen suppliers serving the beauty shop and hotel trade, has been developed for removing nail polish stains from linen and cotton towels by regular commercial laundry methods, and is now manufactured by the U. S. Industrial Chemical Co., Inc.

As the usual nail polish contains nitrocellulose, which is very durable and substantially unaffected by ordinary detergents and washing operations. Therefore, a suitable solvent must have the property of loosening and removing the polish but must not damage the fabric. U. S. I. Washing Compound does not dissolve the nail polish but softens it sufficiently so that the mechanical action of the washing machine removes it without damage to the fabric.

The economy and effectiveness of U. S. I. Washing Compound have been demonstrated by a two-year experimental test period under actual operating conditions. By its use, it is now possible to eliminate virtually all "discards" due to nail polish stains, thus effecting considerable saving in replacement costs.

ALCOHOL INDUSTRY CODE

(Continued from preceding page)

sylvania Alcohol Corp.; Lester S. Bacharach, Empire Distilling Corp.; M. F. Chase, Commercial Solvents Corp.; Harry E. Dunning, American Commercial Alcohol Corp.; C. Esteva, Puerto Rico Distilling Co.; J. W. McLaughlin, Carbide & Carbon Chemicals Corp.; J. G. Park, Standard Alcohol Corp. and J. J. Smith, Publicker Commercial Alcohol Co. Robert T. Baldwin, Secretary of the Solvents Institute, is Director and Treasurer.

The Industrial Alcohol Code is devoted solely to the trade practices and administrative functions of the Industry. Labor provisions continue to be governed by the Code of the Chemical Manufacturing Industry.

UNUSUAL ALCOHOL DERIVED CHEMICALS

This is the sixth of a series of articles on some of the more unusual chemicals manufactured by the U. S. Industrial Chemical Co., Inc., using alcohol as the basic raw material.

Refined Amyl Alcohol

Refined amyl alcohol is another of the highly specialized products manufactured by the U. S. Industrial Chemical Co., Inc., and is classed as one of the more unusual chemicals of alcohol origin. It is composed of approximately 85% iso-amyl alcohol and 15% active amyl alcohol.

Amyl alcohol is the chief component of crude fusel oil, a by-product obtained in the manufacture of ethyl alcohol by fermentation and a naturally occurring blend of higher alcohols. To produce refined amyl alcohol, the crude fusel oil is washed, given a chemical treatment and then carefully refined in a fractionating column. Owing to the unavoidable variations in the crude oil, refined amyl alcohol does not have a strictly definite composition but, because it is painstakingly rectified within narrow limits, will be found to run very uniform in chemical behavior and purity.

Applications

The chief demand for a highly refined amyl alcohol is for use as an intermediate in the manufacture of fine chemicals and pharmaceuticals. Chemical supply houses also require this quality amyl alcohol for resale to school and research laboratories.

The yield of refined amyl alcohol from crude fusel oil is small, which, coupled with the extreme care and expense of processing, necessarily makes the cost relatively too high for solvent purposes. Other medium boiling alcohols such as refined fusel oil, normal butyl alcohol, etc., are satisfactory for the solvent field.

The structural formulas and boiling points (approximate) of iso— and active amyl alcohol are as follows:

Iso-amyl alcohol—

$(CH_3)_2CHCH_2CH_2OH$

B. P. 131°C.

Active amyl alcohol—

$CH_3CH_2(CH_3)CHCH_2OH$

B. P. 128°C.

TECHNICAL DEVELOPMENTS

A new syphon bottle filler for handling liquids that should be filled "easily," without pressure such as liquids of a foamy nature, is now available. It is equipped with either six or eight bronze tinned filling spouts and has a monel metal tank which is gravity fed from a storage tank above. An automatic float controls the level of the liquid in the filler tank at all times.

U S I

A small, hand-operated homogenizer, intended for laboratory use is now on the market. Liquid is put into a hopper and pumped through a very fine aperture by means of a hand lever. The stream thus produced is forced against a baffle resulting in a vortex which provides fine dispersion.

U S I

An ink-remover, reported to be a substantially non-aqueous cream for removing ink stains from the skin has recently been patented. It is said to contain approximately 500 g. zinc stearate, 300 g. citric acid, 500 cc., 95% ethyl alcohol and 2000 cc. diethylene glycol.

U S I

Washing and foaming agents suitable for soaps are reported to result when phosphoric acids or its anhydrides is reacted with mono- or di-saccharides and alcohols, according to a recent British Patent. An example gives: dextrose warmed with a mixture of phosphoric acid, phosphorus pentoxide and lauryl alcohol, and the product separated from aqueous solution by the addition of butyl alcohol.

U S I

A special grade of U.S.P. cocoa butter which is odorless and light cream in color is said to offer decided advantages for use in the manufacture of cosmetic preparations. Due to its lack of odor, considerable saving in the amount of perfume oils necessary is said to result.

U S I

A new, continuous dispersing machine, now available, is said to incorporate several improvements over the old type. Operating on new mechanical principles, it insures absence of air infiltration, and gives extremely fine dispersion in the liquid phase and of solids in liquids. It is also said to permit increased concentration of solids.

U S I

A glass pH electrode for laboratory determinations that enlarges the list of solutions whose pH may be measured with an ordinary potentiometer is now on the market. It is said to function in unbuffered, oxidizing or reducing solutions. Thus, distilled water, various bleaches, dyes, etc., are included for the first time among the solutions that may be measured easily and accurately.

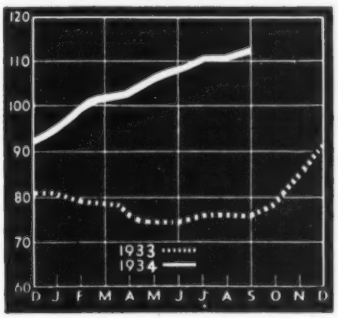
U S I

The all-rubber elastic cap device, as illustrated, is used in the laboratory for covering the mouth of flasks. Easily snapped over the mouth of a flask, it protects the contents from contamination and evaporation. It is supplied in 3 sizes, to fit both Florence and Erlenmeyer flasks of various capacities.

ALCOHOL NEWS

JANUARY ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1935

ETHYL ALCOHOL PRODUCTION



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ALCOHOL PRODUCTION GAIN IN '34 REFLECTS BUSINESS RECOVERY

The marked increase in the production of industrial ethyl alcohol, accompanied at the same time by reduction of inventories on hand at producers' plants, that have been reported for the first nine months of 1934 is a good index of general business recovery for both the staple and luxury classes. Because industrial alcohol is a basic raw material, either directly or indirectly for practically all modern manufacturing processes, the sharp gain in production would naturally tend to reflect improvement in a long list of important industries.

While the actual breakdown of industrial alcohol withdrawals by consuming industries has not yet been released, it is expected that a large majority of consumers will show substantial increases.

ANTI-FREEZE ALCOHOL RULING

When anti-freeze alcohol is sold under a trade or brand name, certain approved substances must be added so that it will not constitute a sale of an approved anti-freeze formula under a trade name according to a recent ruling of the Commissioner of Internal Revenue.

The sale of an approved alcoholic anti-freeze solution under a proprietary name, free of completely denatured alcohol restrictions must be limited to drums and cans.

Aliphatic aldehydes, are well known as perfume ingredients. In perfumery, Aldehyde C_{16}, the lactone of oxynonylic acid, is limited to a few fancy bouquets and odors of the tuberose and gardenia type, but when mixed with a small amount of color, alcohol and water, it produces a delicate cocoanut flavoring compound.

U S I

The incorporation of organic solvents in soaps is the subject of a recent foreign patent. The solvents are emulsified in water with the aid of mineral-oil sulphonic acids and the emulsion mixed with soap; or a solvent containing the sulphonic acids in solution may be mixed with the soap according to the specifications.

CODE CHANGES FOR ALCOHOL AND CONSUMING INDUSTRIES

All Alcohol Makers Support Code

All members of the industrial alcohol industry whose principal line of business is governed by some code other than the Industrial Alcohol Code are now obligated to contribute to the support of the Industrial Alcohol Code Authority under a recent ruling of the National Industrial Recovery Board.

This order terminates for the industrial alcohol industry the exemption conferred by Administrative Order X-36 which prohibited multiple code assessments.

Cosmetic Code Amended

It is reported that members of the perfume, cosmetic and other toilet preparations industries, the bulk of whose products were produced under some other code, are now required to contribute to the support of the code authority for the cosmetic industry unless sales of products manufactured under the cosmetic code during 1933 amounted to $5000. or less and represented 5% or less of the total net sales of such members.

This order is issued as an amendment to an earlier order terminating the exemption of such manufacturers from paying fees to this code authority.

Drug Code Authority Approved

The National Recovery Administration has approved the following as members of the Code Authority for the pharmaceutical and biological manufacturing industries:

Carl N. Angst, Pitman-Moore Company; Horace W. Bigelow, Parke, Davis & Co.; Clifford V. Haver, Haver-Glover Laboratories; John G. Searle, G. D. Searle & Co.; and A. Homer Smith, Sharp & Dohme, Inc.

METHOD OF GAUGING CONTENTS OF INDUSTRIAL ALCOHOL DRUMS

Provides Practical Inventory Check

The following method for determining the contents of a standard 54-gallon industrial alcohol drum provides an easy and practical way of calculating the number of gallons in the container at all times and requires no other apparatus than an ordinary yard-stick.

In the table shown below, figures are given for measuring the contents when the drum is in either the vertical or horizontal position. After the bung is removed from the top of the drum, the yard-stick, graduated in inches, is inserted to the bottom of the drum, withdrawn and the number of wet inches noted. The temperature is noted at the time of reading (if the temperature of the contents of the drum should differ appreciably from the room temperature, actual temperature of the contents should be noted). Then refer to the temperature column in the table below, comparing the temperature reading with the number of wet inches. Where the two columns intersect the number of gallons in the container is recorded. A simple mathematical calculation will reveal corrections for fractions of an inch or intermediate temperature reading.

For example, a drum in the vertical position shows a stick reading of 18½ wet inches and a temperature reading of 55° F. By referring to the 18 wet inch and the 50° F. columns, it will be seen that the drum would contain 31.5 gallons. Correcting for the intermediate temperature (55° F.), at 60° F. the drum would contain 31.3 gallons, so the intermediate temperature reading would approximate half the difference, or 31.4 gallons. Similarly, correcting for the fraction of an inch, the difference between 18 and 19 wet inches is 1.7 gallons at

(*Continued on next page*)

TABLE FOR GAUGING CONTENTS OF INDUSTRIAL ALCOHOL DRUMS

DRUM VERTICAL

Wet Inches	70°F	60°F	50°F	40°F	30°F
1	1.7	1.7	1.7	1.7	1.7
2	3.4	3.4	3.4	3.5	3.5
3	5.1	5.2	5.2	5.2	5.3
4	6.9	7.0	7.0	7.1	7.1
5	8.7	8.7	8.8	8.8	8.9
6	10.4	10.4	10.5	10.5	10.6
7	12.1	12.1	12.2	12.3	12.4
8	13.8	13.9	14.0	14.0	14.1
9	15.5	15.6	15.7	15.8	15.9
10	17.2	17.3	17.4	17.5	17.6
11	19.0	19.1	19.2	19.4	19.5
12	20.7	20.8	20.9	21.1	21.2
13	22.4	22.6	22.7	22.8	23.0
14	24.2	24.3	24.4	24.6	24.7
15	26.0	26.1	26.3	26.4	26.5
16	27.6	27.7	27.9	28.1	28.3
17	29.4	29.6	29.7	29.9	30.1
18	31.1	31.3	31.5	31.7	31.8
19	32.8	33.0	33.2	33.4	33.6
20	34.5	34.7	34.9	35.1	35.3
21	36.2	36.4	36.7	36.9	37.1
22	37.2	38.2	38.4	38.6	38.8
23	39.6	39.9	40.1	40.4	40.6
24	41.5	41.7	41.9	42.2	42.4
25	43.2	43.4	43.7	43.9	44.1
26	44.9	45.1	45.4	45.7	45.9
27	46.6	46.9	47.1	47.4	47.7

DRUM VERTICAL

Wet Inches	70°F	60°F	50°F	40°F	30°F
28	48.3	48.6	48.9	49.2	49.4
29	50.1	50.3	50.6	50.9	51.2
30	51.7	52.0	52.3	52.6	52.9
31	53.5	53.8			

DRUM HORIZONTAL

Wet Inches	70°F	60°F	50°F	40°F	30°F
1	0.8	0.8	0.8	0.8	0.8
2	2.4	2.4	2.4	2.5	2.5
3	4.4	4.5	4.5	4.5	4.5
4	6.8	6.9	6.9	7.0	7.0
5	9.5	9.5	9.5	9.6	9.7
6	12.3	12.3	12.4	12.5	12.6
7	15.3	15.4	15.5	15.6	15.7
8	18.4	18.5	18.6	18.7	18.9
9	21.6	21.8	21.9	22.0	22.2
10	25.0	25.1	25.3	25.4	25.6
11	28.3	28.4	28.6	28.8	29.0
12	31.6	31.8	32.0	32.2	32.4
13	34.9	35.1	35.3	35.5	35.7
14	38.1	38.4	38.6	38.8	39.0
15	41.2	41.5	41.7	42.0	42.2
16	44.3	44.5	44.9	45.1	45.5
17	47.1	47.4	47.6	47.9	48.2
18	49.7	50.0	50.3	50.6	50.9
19	52.1	52.5	52.7	53.1	53.3

Prepared Monthly by the U. S. Industrial Alcohol Co.

JANUARY ★ **ALCOHOL NEWS** ★ 1935

USES OF PECTIN IN COSMETICS

The use of pectins in a number of important cosmetic products seems to be increasing and further extension of their use is in prospect.

In aqueous solutions, pectins are said to possess all the intrinsic characteristics of colloids and have a very beneficial action on the skin. They appear to have an affinity for the cellular structure of the skin and human hair. These colloidal solutions of pectins are readily absorbed by both the skin and hair and are not accompanied by any chemical reaction which accompanies the use of alkaline substances. Another advantage is that the pectin substance has the power of neutralizing any excess alkali that may exist.

It has been adopted for use in latherless shaving creams, and when mixed with alcohol or water, can be used with advantage in thickening dentifrices, etc.

INSULIN BY NEW PROCESS

A new process for the extraction of insulin has been patented and assigned to the free use of the public by its inventors.

Insulin is extracted from the roots of certain plants with hot water. The liquid is then treated with a suitable basic oxide, hydroxide or carbonate. Excess of the base is removed together with precipitated impurities by filtering and the liquid is then treated with carbon dioxide to neutralize further and purify it. The precipitate is removed and the liquid concentrated in a vacuum still. It is then heated to 90—95°C, and on cooling to room temperature, the insulin separates out. Final purification follows.

GAUGING ALCOHOL DRUMS

(Continued from preceding page)

50° F. One-half of the difference, or .85 gallons, is therefore added to the figure of 31.4 gallons to compensate for the extra ½ inch on the stick reading, giving a total of 32.25 gallons, a close estimation of the contents of the drum.

The tables were prepared by the U. S. Industrial Alcohol Co. for use in determining the contents of a standard 54-gallon drum of SUPER PYRO Anti-freeze, but work equally well for other industrial alcohols, both completely denatured and specially denatured. Additional copies of the table are available.

Sodium sesquisilicate, a new cleaning agent, is suggested as suitable for cleaning industrial glassware of all kinds where hand contact is not involved. The product is claimed to have wetting power against glass equal to that of metasicilate. It is also suggested as suitable for heavy duty cleaning of oil-soaked floors, etc.

UNUSUAL ALCOHOL DERIVED CHEMICALS

Collodion

Collodion is a "specialty" product: not an alcohol-derived chemical. Collodions are essentially thin-bodied solutions of nitrocellulose in a mixture of ether and ethyl alcohol, with or without the addition of other ingredients as are listed below. However, because of the highly specialized uses of these products, they are included in this series.

Particular attention is called to the extreme purity of the raw materials and the uniformity of the finished collodions, which have regularly been manufactured by the U. S. Industrial Chemical Co., Inc., for a number of years.

Collodion U. S. P.

Collodion U. S. P. is made by dissolving nitrocellulose in ether-alcohol mixture according to the standard U. S. P. formula:

Pyroxylin	40 gm.
Ether	750 cc.
Alcohol	250 cc.
To make about	1000 cc.

Pharmaceutical firms find considerable use for this product in the manufacture of many medical and proprietary products. By reason of its use in surgical work where extreme purity is required, great care is taken in the selection of the constituents and in the process of manufacture.

Collodion Flexible U. S. P.

Collodion Flexible is Collodion U. S. P. plasticized with camphor and castor oil according to the following U. S. P. formula:

Camphor	20 gm.
Castor oil	30 gm.
Collodion (U.S.P.)	950 gm.
	1000 gm.

Its uses are substantially the same as for Collodion U. S. P. Some manufacturers, however, prefer the Collodion Flexible as a base for certain proprietary and medical products.

Photo Collodions

Photo Collodions are specially prepared for the manufacture of photographic emulsions and are usually compounded on buyers' specifications. However many users have now standardized on the so-called 2½ oz. and ¼ oz. solutions. They are compounded of pyroxylin in a mixture of equal parts of ethyl alcohol and ether.

Because of the extreme delicacy of emulsions and photo-engraving technique, extreme care is taken by U. S. I. to insure absolute purity.

TECHNICAL DEVELOPMENTS

Soap cakes with molded plastic tablets in the center are being introduced in Europe. The tablets carry the manufacturer's trade mark and are intended to remind the user that when the cake is nearly used up, he should again purchase the same brand.

U S I

A water-jacketed mold for cooling lipsticks and suppositories has been placed on the market. It is equipped with one tube for direct connection with a water-tap and another for draining. Thus, quick chilling may be secured without the necessity of moving or handling the mold.

U S I

An electrical stethoscope, designed to transmit most efficiently at low audio frequencies (rumbles, thumps, etc.), has a self-contained microphone and amplifier. Aside from medical diagnosis, it has applications in vibration studies and acoustic tests.

U S I

In the preparation of stearate creams, triethanolamine has been used experimentally to replace potassium carbonate with the reported result that when the amine is used, the tendency of the cream mass to foam or overflow during manufacture is eliminated and there is no formation of lumps.

U S I

A new insulating material is reported as both opaque against X-Ray current and suitable for high tension current use. It can be molded into any desired shape and is adaptable for tube shields or for enclosing an entire X-Ray room.

U S I

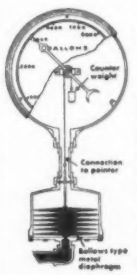
A "rheumatism oil," highly prized in China as a cure for rheumatism, is extracted from rattlesnakes. A recent shipment of this unusual raw material, consisting of some 200 rattlesnakes pickled in alcohol, was sent to China to be used for this purpose.

U S I

Solutions of vitamin D in organic solvents such as alcohol and ether, in vacuo, may be stabilized by the addition of 10-25% by volume of vegetable or animal oils, sesame oil, cod-liver oil, lard, etc., according to a process recently patented. This is said to be of particular value in the continuous manufacture of vitamin D by irradiation.

U S I

A liquid gauge, operating on converse principle of barometer bellows, is now on the market. The liquid in a tank is connected by a tube to the metal diaphragm located at the bottom of the gauge which in turn is connected mechanically to the indicator. As the liquid in the tank is raised, the pressure expands the diaphragm which change is recorded by the indicator. Measurements may be in any desired terms, i.e., gallons, pounds, barrels, etc. The gauge is calibrated at a definite predetermined temperature, to allow for corrections due to volume changes caused by changes in temperature.



ALCOHOL NEWS

FEBRUARY ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1935

Pharmacopoeia Changes

A copy of the first abstract of proposed changes dealing with *inorganic chemicals* for the forthcoming revision of the U. S. Pharmacopoeia has been prepared and, according to an announcement, will be mailed without charge to anyone who is interested.

The publication of abstracts of changes proposed for the Pharmacopoeia is in compliance with recommendations of the Pharmacopoeial Convention so that all interested parties may follow the revision and make comments if desired.

Other abstracts are scheduled to be issued shortly. Communications should be addressed to Mr. E. Fullerton Cook, Chairman of the Revisions Committee, Philadelphia College of Pharmacy, Philadelphia, Pa.

NEW ALCOHOL RULING

A ruling against the branding, selling, labeling, advertising, etc., of other products as completely denatured alcohol has recently been issued by the Treasury Department. This new regulation, issued as T. D. 4507 takes the place of paragraphs 12 and 13 of Article 117 of Regulations 3.

It is reported that the regulation was issued chiefly to protect the public against substitution as it was found that in some instances, methanol, iso-propyl alcohol and other products were being labeled or sold as completely denatured alcohol.

ALCOHOL PRODUCTION UP FOR '34

Although the complete figures on ethyl alcohol produced for industrial use during 1934 are not yet available, it appears that an increase of between 15 and 20 per cent will be reported. Sales, based on preliminary estimates are expected to show a slightly higher rate of increase.

That manufacturing costs will be higher during 1935 has been evident for some time. This fact has had an important influence in serving to strengthen the underlying price structure and better and more stable business is looked for in 1935.

Methanol has also made good gains in volume of output, compared to 1933. Improvement in efficiency of producing units has been important in strengthening the position of this industry.

A new type closure known as the "Vacu-Vent Cap" is on the market with a patented pressure-release vent which simplifies packing or hot processing of the contents. It is so constructed that any expanding gas within the container will escape and yet no outside air is admitted. The same vent may be opened by pressure from the outside to admit air so that the cap may be unscrewed easily.

U S I

A new "batching" machine for making up small quantities of lotions and other liquid preparations that require dissolving in or processing with various solvents is now available in several sizes. The unit consists of three or more movable tanks set under a shaft with connections for an agitator for each tank. Both tanks and agitators may be easily removed for cleaning.

PRACTICAL, WORKABLE LEGISLATION URGED FOR INDUSTRIAL ALCOHOL INDUSTRY

Uniform State and Federal Laws Needed to Further Best Interests of Both Government and Industry

Cooperation between the industrial alcohol industry, (which indirectly includes the vast array of industries in which alcohol—pure and denatured—is an essential raw material) and the legislators of both Federal and State governments, is strongly urged by James P. McGovern, General Counsel for the Industrial Alcohol Institute. In this way only, may practical, workable, legislation be enacted which will aid in furthering the progress and advancement of American Industry.

Uniformity of State and Federal laws which will impose least burdensome restrictions on the users of industrial alcohol, both pure and denatured, is of primary importance in furthering the interests of both the government and the industry and can only be accomplished by the cooperation and coordination of all parties concerned.

Much of the legislation in effect today, which should be considered as temporary or experimental, is complex and cumbersome because of the haste with which it was enacted as a part of the necessary set-up following repeal of the Eighteenth Amendment.

Mr. McGovern suggests the following as a suitable clause which, if incorporated in the control and tax laws of the various states, would avoid complication and afford the necessary protection to those industries dependent on industrial ethyl alcohol as a raw material:

"The provisions of this act shall not apply to ethyl alcohol intended for use and or used for the following purposes:

1.—For scientific, chemical, mechanical, industrial, medicinal, and culinary purposes.

2.—For use by those authorized to procure the same tax-free, as provided by the acts of Congress and regulations promulgated thereunder.

3.—In the manufacture of denatured alcohol produced and used as provided by the acts of Congress and regulations promulgated thereunder.

4.—In the manufacture of patented, patent, proprietary, medicinal, pharma-

(Continued on next page)

DATE SET FOR ANNUAL N. Y. DRUG, CHEMICAL & ALLIED TRADES DINNER

Plans for the Tenth Annual "Drug, Chemical and Allied Trades Get-Together" to be held Thursday, March 21st, at the Waldorf-Astoria, New York, are already well under way, according to advices from Gustave Bayer, Chairman of the Publicity Committee.

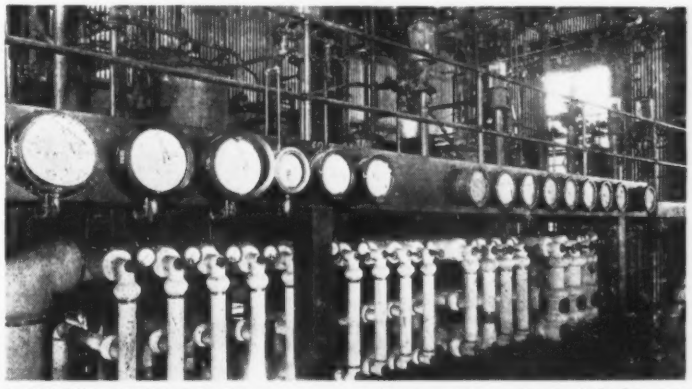
This year's affair will be better than ever and all planning to attend are urged to make their reservations as early as possible with Ray C. Schlotterer, Secretary of the Drug, Chemical and Allied Trades Section of the New York Board of Trade, 41 Park Row, New York City.

Full details of the program are not available at this time, but will be announced in the March issue.

DAVIS RETIRES AFTER 56 YEARS

William Webb Davis retired from his duties on the New York sales staff of James A. Webb & Sons, Inc., a division of the U. S. Industrial Alcohol Co. on January 1st, having completed over 56 years of service in the alcohol business. Mr. Davis, who joined the Webb firm on September 1st, 1878, was a nephew of the late James A. Webb, founder of the firm that bears his name.

Mr. Davis won the high regard and admiration of all with whom he came in contact both in business and in private life, and his many friends and associates at U. S. I. all wish him every happiness in his retirement from active business.



A COMPLETE CHECK of distillation processes, reaction temperatures, etc., is attained at one central point with the master control panel used by the U. S. Industrial Alcohol Co.

DETERMINATION OF CHOLESTEROL BY MICROCHEMICAL TEST REPORTED

A method for the determination of the presence of cholesterol has been reported from abroad. The technique for showing the cholesterol consists in the preliminary evaporation of a chloroform solution of the cholesterol on a microscope slide, to form a thin layer.

The slide is then placed over another which contains a drop of an iodine solution in hydrochloric acid (1 to 70). The reaction is carried out in a darkened room, and the interaction begins after fifteen minutes and is completed in from one to four hours. Blue or violet-colored needles or prisms are formed, which are very dichroic or anisotropic in structure.

This test is not given by either ergosterol or phytosterol, according to the report.

PRACTICAL, WORKABLE LEGISLATION URGED FOR INDUSTRIAL ALCOHOL INDUSTRY

(Continued from preceding page)

ceutical, antiseptic, toilet, scientific, chemical, mechanical, and industrial preparations or products, unfit for beverage purposes.

5.—In the manufacture of flavoring extracts and syrups, unfit for beverage purposes."

PROPOSED CHANGES IN ALCOHOL LEGISLATION BEFORE CONGRESS

Extension of the tax-free alcohol provisions relating to hospitals is proposed in a bill (HR-1425) introduced at this session of Congress. The bill would make these provisions apply to "the use of any clinic operated for charity and not for profit, including use in the compounding of bonafide medicines for treatment outside of such clinics of patients thereof, but not for sale."

Another bill (HR-33) provides for the reduction of the rate of internal revenue tax on distilled spirits and on imported perfumes containing distilled spirits to $1.10 per gallon in lieu of $2.00 per gallon. (Tax computed on the basis of proof gallons.)

Revival of interest in the question of alcohol-gasoline blended motor fuel is suggested by a bill (HR-1377) providing for a specified percentage of alcohol manufactured from agricultural products grown in the United States, to be added to gasoline.

Tincture of cinchona bark that is free from tannin may be prepared by percolating a mixture of the bark and lime with 95% alcohol according to a recent report in the Journal of the American Pharmaceutical Association.

UNUSUAL ALCOHOL DERIVED CHEMICALS

This is the eighth of a series of articles on some of the more unusual products manufactured and sold by the U. S. Industrial Chemical Co., Inc., using alcohol as the basic raw material.

Curbay Binder

Curbay Binder is one of the major by-products obtained in the manufacture of industrial ethyl alcohol, and has been marketed for a number of years by the U. S. Industrial Chemical Co., Inc. The recovery unit at the U. S. I. plant in Baltimore was specially designed by the Company's engineers and is the largest installation of its kind in the world.

Curbay Binder has its origin in the manufacture of alcohol where a mixture of molasses and water is fermented. After removal of the alcohol by distillation, the remaining liquid, known as DMR (Dilute Molasses Residue), is concentrated in large evaporators. It becomes a dark colored, syrupy liquid, inoffensive in odor. Chemically, it is a complex mixture of vegetable gums, unfermentable sugars, inorganic salts and water.

Its use, as the name implies, is principally as a core binding material in foundry practice. It has also been suggested as a "briquet binder" for agglomerating charcoal or slack coal into briquet form for industrial use.

In foundry work it compares favorably with "foundry molasses" and has the further advantage of very low cost. Some of its characteristics which fit it admirably for foundry use are:

1. Mixes easily with sand in all proportions and will not cause unusual sticking.
2. Cores made with Curbay Binder are very porous but strong, thereby eliminating tendency to wash.
3. Absorbs moisture less readily than any other binder of this type.
4. Gases resulting from organic binders are reduced to a minimum with Curbay Binder.
5. Composition is controlled and relatively uniform.

Experimental work in its use as a "briquet binder" has been conducted with promising results. A good briquet binder must be cheap, readily available, give good crushing and soakage tests and burn without smoke, odor or undue ash. Partial baking of briquets made with Curbay Binder has given encouragement to further tests in this field.

TECHNICAL DEVELOPMENTS

The items in this column are gathered from many varied sources. Further information on any of them may be obtained by writing to U. S. I.

U S I

A portable radium detector, of special interest to hospitals and radiologists, has been developed. A light aluminum ionization chamber which serves the "explorer" and an amplifier with indicator make up the unit carried by the operator. A 25-mg. preparation may be detected at a distance of 7.5 ft., or 10 mg. at 3 ft.

U S I

The addition of triethanolamine to preparations containing sulphonated fatty alcohols has been recommended to increase the cleansing properties. It is immaterial whether the alcohols themselves or their sodium salts are used.

U S I

A new cooling unit, suitable for the cooling of ointments and the like in manufacturing processes, is available. This device is constructed of a nest of tubes for circulating a refrigerant and is enclosed in a smooth surfaced non-corrosive metal jacket.

U S I

A new, clear-vision hydrometer jar is on the market equipped with a thermometer—permitting quick, accurate reading. The thermometer is held in place in the jar by two expansion spring bronze-chromium plated clips which may be easily removed for cleaning.

U S I

Industrial uses of the spectrograph seem to be increasing almost daily. A new small Littrow Quartz unit is especially suited to aid in the analysis of reactions which take place in the combustion chamber of gas engines as well as applicable to other uses.

U S I

Saponifying waxes, such as spermaceti, beeswax, wool fat, carnauba, sperm oil, etc., by heating with dry caustic potash or caustic soda, or a mixture of the two (which yields soaps having the lowest melting point) is the subject of a recent British Patent. Alcohols are separated from the saponified mixtures by distillation in superheated steam at atmospheric or reduced pressures.

U S I

Vitamin C has been found useful in the treatment of pyorrhea according to reports from abroad. It is stated that physicians in Germany and Hungary have been able to check and cure the disease by from one to three injections of synthetic Vitamin C.

U S I

A new synthetic grinding ball has been announced, which may be used as the grinding media with pebble, ball, and tube mills. It is claimed that this ball is so tough that it will not split, chip or fracture, and so hard that it offers greater resistance to abrasion than any type of grinding media yet developed.

U S I

A new type fountain stencil brush which incorporates several advantages, is now available. The body is of one piece cast aluminum with no joint between the ink reservoir and a valve which is hand operated to control the flow of ink. The brush tip is replaceable.

3 VITAL QUALITIES of SHEFFIELD TUBES

Buyers of collapsible tubes appreciate the three special qualities they know are behind every Sheffield tube . . . . the artistic quality, which assures flawless decorating work and sales-compelling attractiveness . . . . the accuracy and manufacturing care, which assures uniformity, durability, and filling ease . . . . and the scientific facilities that reduce, through extensive laboratory tests, the possibility of costly mistakes or unsatisfactory results.

The facilities of the Sheffield laboratories are at your disposal at any time.

The New England Collapsible Tube Co.

NEW YORK—500 Fifth Avenue NEW LONDON, CONN. CHICAGO—3132 S. Canal St.

...and it's a *man's-sized* job for us all

THERE'S a sign like this on every store window in the country — for the manufacturer who's smart enough to know it's there.

What does it mean? Just this:

> "You can't sell any more than we retailers manage to sell for you. Don't just sell *to* us — *help us sell our customers.* The better job you do, the more money both of us will make."

Your biggest need — your biggest opportunity — are in the field of retail merchandising. Has it occurred to you that the American Can Company should be in a position to help? Indeed, what more logical source of information about marketing packaged goods, than a company with such wide experience in building successful packages and displays?

The modern package — the modern point-of-sale display — are more than so much fibre or metal. They are *selling tools* — to speed the flow of goods where retailer and consumer meet. To build them successfully we have had to study marketing. We have had to know what goes on in retail stores, and in consumers' minds.

You have a marketing problem? — or believe your product could move faster than it is doing at the present time? Drop a line to the Sales Promotion Department of the American Can Company, 230 Park Avenue, New York City—possibly we can help. Whether or not your problem concerns packaging and display, we should be glad to talk it over with you and contribute what we can.

Why does American Can Company concern itself with problems of retail merchandising?

Our reasons are the same as yours. *We* cannot sell more packages than you sell for us—*you* cannot sell more than the consumer buys. The consumer is our common goal.

AMERICAN CAN COMPANY

BOTH AWARDS TO WIRZ

First and Second . . . in the Collapsible Tube Division of the All-America Package Competition . . . the beautiful new embossed Luxor tube . . . and the smartly simple Palmolive tube . . . selected on their merits from hundreds of tubes entered in the contest . . . . . Our Design and Production departments will gladly cooperate with you in creating and working out new sales-producing ideas for collapsible metal tubes. Let us talk over your package problem.

Collapsible Metal Tubes

Metal Sprinkler Tops

A. H. WIRZ, INC.

Established 1836 CHESTER, PA.

CHICAGO, ILL., 80 E. Jackson Blvd. NEW YORK, N. Y., 30 East 42nd St.
LOS ANGELES, CAL., 1231 East Seventh St.
HAVANA, CUBA, Roberto Ortiz Planos, O'Reilly 49, Dept. 209

(*See Also Back Cover*)

No. 72 —43	M/M Bath Salt Cap	No. 238 —15	M/M Talcum Can Top	No. 282*—24	M/M Screw Cap
No. 140 —35	M/M Sifter Top Cap	No. 240 —14¾	M/M Square Slip Cap	No. 291*—22	M/M Screw Cap
No. 150 —13	M/M Screw Cap	No. 249 —14½	M/M Screw Cap	No. 292 —28½	M/M Flask Cap
No. 185 —15½	M/M Screw Cap	No. 250 —12	M/M x 23½ M/M Oval Slip Cap	No. 295 —13½	M/M Slip Cap
No. 186 —44	M/M Fancy Bath Salt Cap	No. 251 —15	M/M Screw Cap	No. 298*—38	M/M Talcum Cap, Sifter Top
No. 188 —23½	M/M Talcum Can Top	No. 257 —12	M/M x 23½ M/M Oval Slip Cap	No. 300*—18	M/M Screw Cap
No. 200 —28	M/M Sifter Top Cap	No. 258 —40	M/M Bath Salt Cap	No. 317 —11	M/M Slotted Slip Cap
No. 0200 —28	M/M One Piece Cap	No. 264*—20	M/M Screw Cap	No. 323 —45	M/M Bath Salt Cap
No. 215 —19½	M/M Talcum Can Top	No. 267 —16	M/M Slip Cap	No. 324*—45	M/M Cream Jar Cap Same design as No. 323.
No. 230 —13	M/M Screw Cap	No. 269 —44	M/M Bath Salt Cap	No. 327*—43	M/M Same design as No. 324.
No. 232 —13	M/M Screw Cap	No. 281 —11	M/M Slip Cap		
No. 234 —10½	M/M Screw Cap				
No. 236 —19½	M/M Slip Cap				

*FITS G. C. A. No. 400 GLASS FINISH

Pat. Design No. 91670

A New Style Dispensing Bottle . . . .

The popular dispensing bottle with the cut glass effect is now available in a new and striking design. This style No. 353 is obtainable in 1, 2 and 4 dram sizes. Design patented. Supplied with or without caps.

CARR-LOWREY GLASS CO.

Factory and Main Office: BALTIMORE, MD.

NEW YORK OFFICE: 500 FIFTH AVE., Room 1427
Telephone: CHickering 4-0592

CHICAGO OFFICE: 1502 MERCHANDISE MART
Telephone: WHitehall 4326

THE February issue of our wholesale list will be found to have been considerably expanded.

The demand for many hitherto unlisted specialties now justifies the broader distribution of those which have been found so satisfactory in many of the industries we regularly serve.

No price list, however, can adequately convey certain of those qualities inherent in an organization responsible for the confidence imposed in it by those with whom it deals.

There is a certain fundamental attitude toward business transactions and their ethics which measures quite accurately the value of such an organization as a source of supply. It accepts the confidence of its clients as *a trust to be guarded at every point of contact*, and the responding confidence becomes the *greatest single asset* of such an organization.

No price list can convey to a client those intangible but vital factors as does the satisfaction which follows a series of transactions spread over a period of years.

These things are responsible, we believe, for the continuous growth of our business and the increased number of customers enrolled on our records each year.

FRITZSCHE BROTHERS, Inc.

Oil Orris Root Florentine
Seillans

EVIDENCE continues to be presented through reports from practical perfumers that the claims made for Oil Orris Root Florentine, Seillans, in our announcement of a few months ago were actually less than its outstanding quality now appears to justify.

Dissatisfaction with those qualities which we were able to procure led to the manufacture of Concrete Oil Orris in our own factory in Seillans. Its cost per pound is greater but its cost in use is no greater and possibly somewhat less than that of quite mediocre qualities sold at *apparently* a lower price.

We find it fully double the strength of many concretes in this market. But of greater importance is its *rich, powerful, true Orris note* which is found only in the finest Florentine root.

LAVENDER

THE desire for a lavender note, subtle, penetrating and of great power is amply satisfied by the following specialties of our own factory in Seillans, Var, France:

Lavender Concrete, *Seillans*

Lavender Concrete, *Seillans*, Colorless

Liquid Absolute Essence of Lavender, *Seillans*

Liquid Absolute Essence of Lavender, *Seillans*, Decolorized

Inherent in all four is the sweet flowery top note of the living blossoms; and the odor persists in the finished product long after the odor of a distilled lavender will have disappeared.

Due to our facilities for making lavender and because of our large stocks made when costs were lower, the superfine Lavender products are actually less expensive today than pure distilled oil.

Ylang Ylang "*Corona*"

THIS very useful product regularly present in the laboratories of nationally known perfume houses is available now at the *lowest price at which it has ever been offered.*

We do not present this as an argument for its investigation by those who have not used it; but considered in connection with its intense velvety note and its delightful floral character, it becomes *important.*

We present in this Corona brand a specialty of our house for many years — an *outstandingly fine oil* of Ylang Ylang at *a very moderate cost.*

FRITZSCHE BROTHERS

INCORPORATED

78-84 Beekman Street, New York

Branches

BOSTON, MASS. 250 Stuart Street	CHICAGO, ILL. 118 West Ohio Street	COLUMBUS, O. 21 East State Street	KANSAS CITY, MO. 2018 Guinotte Avenue
NEW ORLEANS, LA. 502 Louisiana Building	PHILADELPHIA, PA. 319 Bulletin Building	LOS ANGELES, CAL. 164 South Central Avenue	SAN FRANCISCO, CAL. 122 New Montgomery Street

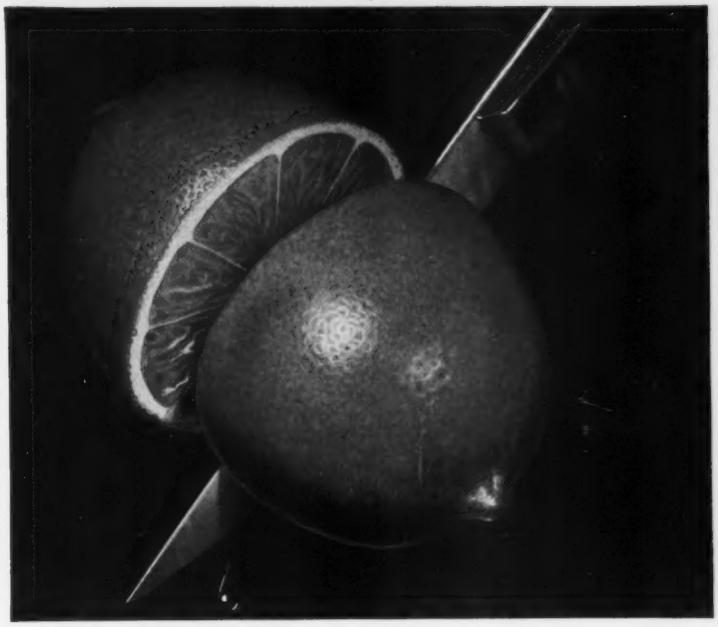
FRITZSCHE BROTHERS OF CANADA, Ltd.

77-79 Jarvis Street, TORONTO, CANADA

PARFUMERIES DE SEILLANS, SEILLANS (VAR) FRANCE

THIS

Lemon Flavor



rivals the fresh-cut fruit!

Now it's *Clarified*

Make a 5% Solution of Lemon Oil in 95% Alcohol..Get a CLEAR Lemon Extract!
NO CLOUD...NO SEDIMENT
NO FILTRATION...NO WASTE

Made with Exchange Cold Pressed Oil of Lemon	Made with Another Brand Bought on the Open Market

Unfiltered 5% (by Volume) Extracts of Oil of Lemon in 95% Alcohol

...YET GIVES A SAVING OVER OTHER OILS

TRY IT. You'll find from experience with your own products that Exchange Brand Oil of Lemon has flavor and aroma equaled only by the actual fruit.

Because—it is made from rich California lemons.

Because—it is 100% Cold Pressed. No heat is applied at any stage in manufacture; so none of the valuable flavoring constituents are driven off.

And because—the Exchange's exclusive process includes Clarification. This removes the unwanted substances which cause sediment in extracts and impair purity of flavor.

Compare Exchange Brand Oil of Lemon solely on the six points mentioned below. You'll select it for its QUALITY. The saving in costs compared with imported oils is clear gain.

Facts Important to YOU

1. **Flavor** that suggests a freshly-cut lemon
2. Finer **Aroma**
3. Deep natural **Color**
4. **Stable** in your finished product
5. **Uniform Performance**
6. **Lower Cost** per unit of flavor

AND NOW...

7. **CLARIFIED.** No sediment. No cloud. No **filtration.** No waste.

•

TO LEMON EXTRACT MANUFACTURERS — Add 95% alcohol to Exchange Brand Oil of Lemon and get immediately a clear lemon extract. No cloud. No delay. No waste. A 5% by volume solution in alcohol conforms to the U. S. Government's definition of lemon extract.

Exchange BRAND

OIL OF LEMON

Sold to the American market exclusively by

FRITZSCHE BROTHERS, Inc.
78-84 Beekman Street, New York City

DODGE & OLCOTT COMPANY
180 Varick Street, New York City

Distributors for

CALIFORNIA FRUIT GROWERS EXCHANGE
Products Department, Ontario, California
Producing Plant: EXCHANGE LEMON PRODUCTS CO., Corona, Calif.

TOP LINE — *BOTTOM* PRICE

Specials for the manufacturer of low-priced goods. Just what the name implies—"*Top Line*"—they're real perfume oils that help sell preparations. And at bottom prices.

ASK for SAMPLES

FOR CREAMS—*Use 3 oz. or more to 100 lbs.*

Top Line Rose	$2.50 lb.
Top Line Lilac	2.50 "
Top Line Bouquet	2.50 "
Top Line Sweet Pea	2.50 "

—and others—

FOR TALC—*Use 2 oz. or more to 100 lbs.*

Top Line Rose	$2.50 lb.
Top Line Orange	2.50 "
Top Line Carnation	3.50 "

—and others—

FOR POMADE—*Use 2 oz. or more to 100 lbs.*

Top Line Oriental	$3.00 lb.
Top Line Southern	3.00 "

—and others—

FOR HAIR OIL—*Use ⅛ oz. or more to gallon.*

Top Line H.O. Rose	$2.50 lb.
Top Line H.O. Lilac	2.50 "
Top Line Kleen	2.50 "

—and others—

FOR TOILET WATER—*Use one ounce or more to gallon.*

Top Line Lavande	$3.50 lb.
Top Line Cologne	3.00 "
Top Line Fougere	4.00 "
Top Line Oriental	3.00 "

—and others—

van Ameringen-Haebler, Inc.

Manufacturers and Importers of

Aromatic Essentials

*[Flavor Materials, Aromatic Chemicals
Essential Oils, Perfume Specialties]*

315 FOURTH AVENUE, NEW YORK

180 North Wacker Drive, Chicago 438 W. 48th St., Los Angeles 42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

LILAC No. 271

the oil $8.00 per lb.

LILAC No. 323

the oil $3.00 per lb.

new—good!

Perfume	—16 ozs. or more to the gallon
Toilet Water	— 2 ozs. or more to the gallon
Cream	— 8 ozs. to one hundred pounds
Powder	— 8 ozs. to 12 ozs. to 100 pounds
Talc	— 4 ozs. to 100 pounds
Lotions	—½ oz. or more to the gallon

Send for samples of oils and try them in your own way

van Ameringen-Haebler, Inc.

Manufacturers and Importers of

Aromatic Essentials

Flavor Materials, Aromatic Chemicals
Essential Oils, Perfume Specialties

315 FOURTH AVENUE, NEW YORK

180 North Wacker Drive, Chicago 438 W. 48th St., Los Angeles 42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

van Ameringen Haebler Inc

Flavors

—an important department and an entire building in our factory group, are devoted to the manufacture of true fruit and artificial flavors for every purpose.

We will be glad to work with you in the development of special flavors for any requirement.

van Ameringen-Haebler, Inc.

New Haarmann & Reimer Products of Unusual Interest

IRALDEIN GAMMA

H. & R.:	*Pure:*
Pure Methyl Ionone predominantly gamma	Pure Gamma Methyl Ionone

Gamma Methyl Ionone is the most sought-after of the four isomers.

IRALDEIN DELTA

H. & R.:	*Pure:*
Pure Methyl Ionone predominantly delta	Pure Delta Methyl Ionone

Samples upon request

EXCLUSIVE AMERICAN AGENTS

van Ameringen-Haebler, Inc.

Manufacturers and Importers of

Aromatic Essentials

Flavor Materials, Aromatic Chemicals
Essential Oils, Perfume Specialties

315 FOURTH AVENUE, NEW YORK

180 North Wacker Drive, Chicago 438 W. 48th St., Los Angeles 42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

HELFRICH

BACK OF MANY LEADING COSMETICS

NEW YORK CHICAGO

MANUFACTURING PLANTS AT THESE STRATEGIC POINTS

Freshness in cosmetics is almost as vital as it is in any of the food products that stress this feature. For this reason, Helfrich carries no stocks. Every order for a cosmetic product is made up separately, whether it be for one or a hundred gross. Thus you are assured of a fresh, pure product at all times.

Submit your cosmetic problems to the nearest Helfrich plant. You will be pleased at the prompt, efficient handling of your inquiry.

HELFRICH LABORATORIES
564-570 W. Monroe St.
Chicago

HELFRICH LABS. of N.Y. Inc.
30-34 West 26th St.
New York

BALDWIN & BALDWIN
819 Santee St., Los Angeles, Cal.

CHARLES H. CURRY
420 Market St., San Francisco, Cal.

ROUGE
COMPACTS
•
POWDER
COMPACTS
•
LIPSTICKS
•
CREME ROUGE
•
EYE SHADOW
•
FACE POWDER
•
COSMETIQUE

An Organization at Your Service

MORE than fine perfume oils, greater than correct formulae, stronger than material quality, is the compelling power of a well-rounded organization.

Many can supply one—or all—of the former. But the latter is afforded only by constant progress through years of effort toward the ideal of whole-hearted co-operation with the buyer.

Since 1895, it has been the destiny of MM&R to build an organization for service to the consumer, reaching all the way from purchase of raw materials to their final use in the customer's product.

An ever increasing clientele testifies to the soundness and worth of this policy.

ESSENTIAL OILS
TERPENELESS OILS
TONQUIN MUSK (grains & pods)
AROMATIC CHEMICALS
SOAP PERFUME OILS
TURTLE OIL, MM&R
PERFUME OILS for Every Purpose
NATURAL ISOLATES
FILTER PAPERS

MAGNUS, MABEE & REYNARD, INC.

Main Offices
32 CLIFF STREET, NEW YORK
Est. 1895
CHICAGO — PHILADELPHIA — BOSTON — MEXICO D. F.
BASIC PERFUME & FLAVOR MATERIALS • ESSENTIAL OILS • AROMATIC CHEMICALS

"I PREFER *Dainty Packages* . . . every woman does!"

This thought expresses one of the outstanding reasons for the trend toward packaging toiletries, perfumes, drugs and pharmacal products in Kimble Glass Vials. Daintiness—convenience—lightness! The three main package requisites of the particular shopper.

Well-known manufacturers of pharmaceuticals, proprietaries, foods and chemicals consult with us constantly on adapting or developing a Kimble Vial to suit their particular sampling or packaging problems. There are Kimble Vials with pipette droppers—there are Kimble Vials with applicator rods—Re-Seal-It capped vials—Capsule Vials with moulded or metal screw caps—Vials for Goldy Seals—Vials for Shaker Tops—and hosts of others to meet the modern needs of a package-conscious public.

With your product put up in Kimble Vials there is never a question of its purity—its sanitation—its attractiveness—and its unrivalled sales appeal.

Valuable facts on shipping economy and packaging savings through glass vials will be furnished on request. Confer with Kimble first!

KIMBLE GLASS COMPANY

VINELAND, NEW JERSEY.

NEW YORK • PHILADELPHIA • BOSTON

CHICAGO • DETROIT

JUST IN TIME! A NEW GIVAUDAN SPECIALTY

ROSE d'ORIENT NO. 34 GIV

Bulgarian Rose Oil, skyrocketing at $10.00 to $12.00 an ounce, has been giving perfumers some bad moments. But — it's an ill wind that blows nobody good. Right here is where Givaudan steps in with a new and remarkably effective synthetic Rose — to the tune of $4.50 an ounce! Now you can estimate your costs and be sure of keeping them *down*.

ROSE d'ORIENT NO. 34 GIV is the result of a long series of experiments at our Geneva Research Laboratories. It has already been used with remarkable success in the French trade. Those few concerns who have tried it in this country have given enthusiastic reports. It's a synthetic that is bound to be a "natural".

ROSE d'ORIENT NO. 34 GIV can be used as a substitute for, or in conjunction with the Natural Oil — in cream, powder, lotion, or extract compositions. It will not cause discoloration in creams. A letter will bring you a sample. Price $67.50 per lb.

We're going to the Tenth Annual Drug, Chemical and Allied Trades Get-Together to be held on Thursday, March 21st, at the Hotel Waldorf Astoria. Are you?

GIVAUDAN

DELAWANNA INC.

80 Fifth Avenue, New York, N. Y.

BRANCHES: Philadelphia Los Angeles Atlanta Cincinnati Detroit Dallas
Baltimore New Orleans Chicago San Francisco Montreal Havana

MOSKENE

IS AN EXAMPLE OF **THE SURVIVAL OF THE FINEST!**

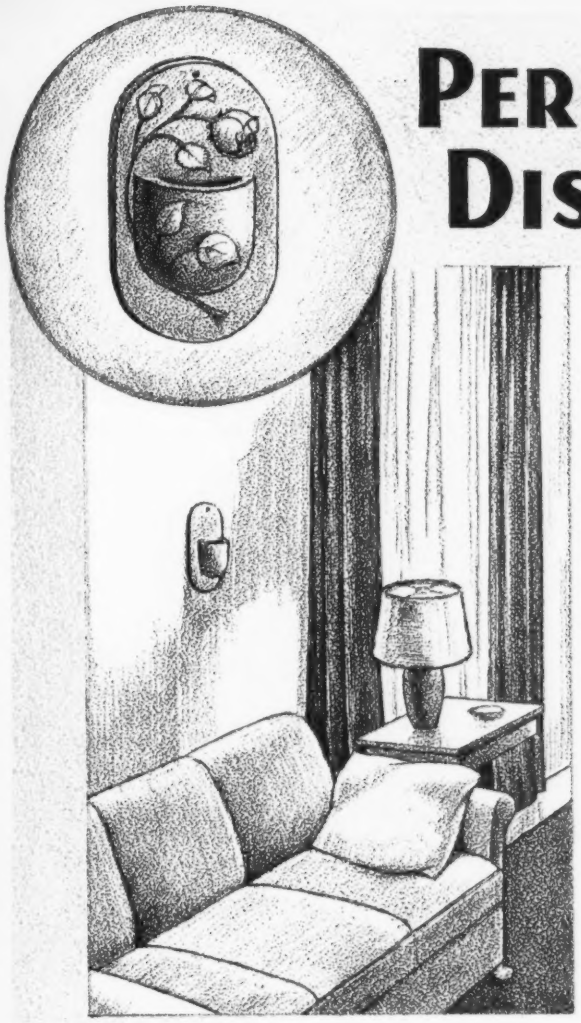
● Your choice of artificial musks is limited. Most newcomers in this line are mere flashes in the pan. Not so MOSKENE. MOSKENE has found a permanent place on nearly every perfumer's list of necessities. It has survived. It is one of the finest. It has a powerful odor and a special note all of its own.

MOSKENE is a pure definite chemical body, never made before. It is more pleasant in odor and less affected by light than Musk Ambrette. Its odor approaches the much admired note of the Ambrette seed.

MOSKENE offers you many new and interesting possibilities. It is steadily increasing in popularity. Write to us. We will gladly send you a sample.

GIVAUDAN
DELAWANNA INC.
80 Fifth Avenue, New York, N. Y.

BRANCHES: Philadelphia Los Angeles Atlanta Cincinnati Detroit Dallas
Baltimore New Orleans Chicago San Francisco Montreal Havana



PERFUME DISSEMINATORS

open a huge market for the Perfume Industry . . . . . .

A manufacturer discovers that a mild, agreeable odor in a tastefully decorated display room materially improves the appealing quality of the room; a retail furniture store, an automobile sales salon find that a faint appropriate odor appeals to their customers. In theatres, homes, offices; in industrial use to disguise or neutralize disagreeable odors, the perfume disseminator has made a place for itself by giving character to a room, by making surroundings a pleasanter place to be in.

But the market for perfume, disseminated through artistic and appropriate disseminators has not been scratched. Felton has specialized in studying this market. They have a lot of information for the manufacturer or distributor who is interested in investigating it.

Write us for full information on this subject and for appropriate samples which we shall be pleased to furnish.

The proper odor for a disseminator must be developed with several special characteristics in mind. Just any perfume, no matter how pleasant, will not do. The perfume for a disseminator must have effusion, must be persistent, must be reasonable in cost and must be appropriate to the place in which it is used. Odors developed by Felton for perfume disseminators will meet any special requirements you have in mind.

FELTON CHEMICAL COMPANY

INCORPORATED

Manufacturers of AROMATIC CHEMICALS, NATURAL ISOLATES, PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS

Executive Offices and Factory: 603 JOHNSON AVE. BROOKLYN, N. Y.

Boston, Mass.	Philadelphia, Pa.	Sandusky, Ohio	Chicago, Ill.	St. Louis, Mo.	New Orleans, La.	Los Angeles, Calif.
80 Boylston St.	200 So. 12th St.	1408 W. Market St.	1200 N. Ashland Ave.	245 Union Blvd.	Balter Bldg.	515 So. Fairfax Ave.

Stocks carried in principal cities

By comparison, the most perfect reproduction of the Lilac note thus far created.

We invite you to compare LILAS SURFINE with the outstanding Lilac flower oils produced here and abroad and selling now at double the price.

We are confident that LILAS SURFINE will be your choice, not because of its low price, but because of its superior quality.

We shall be glad to send you a sample.

FELTON Quality

FELTON CHEMICAL COMPANY
INCORPORATED

Manufacturers of AROMATIC CHEMICALS, NATURAL ISOLATES, PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS

Executive Offices and Factory: 603 JOHNSON AVE. BROOKLYN, N. Y.

Boston, Mass.	Philadelphia, Pa.	Sandusky, Ohio	Chicago, Ill.	St. Louis, Mo.	New Orleans, La.	Los Angeles, Calif.
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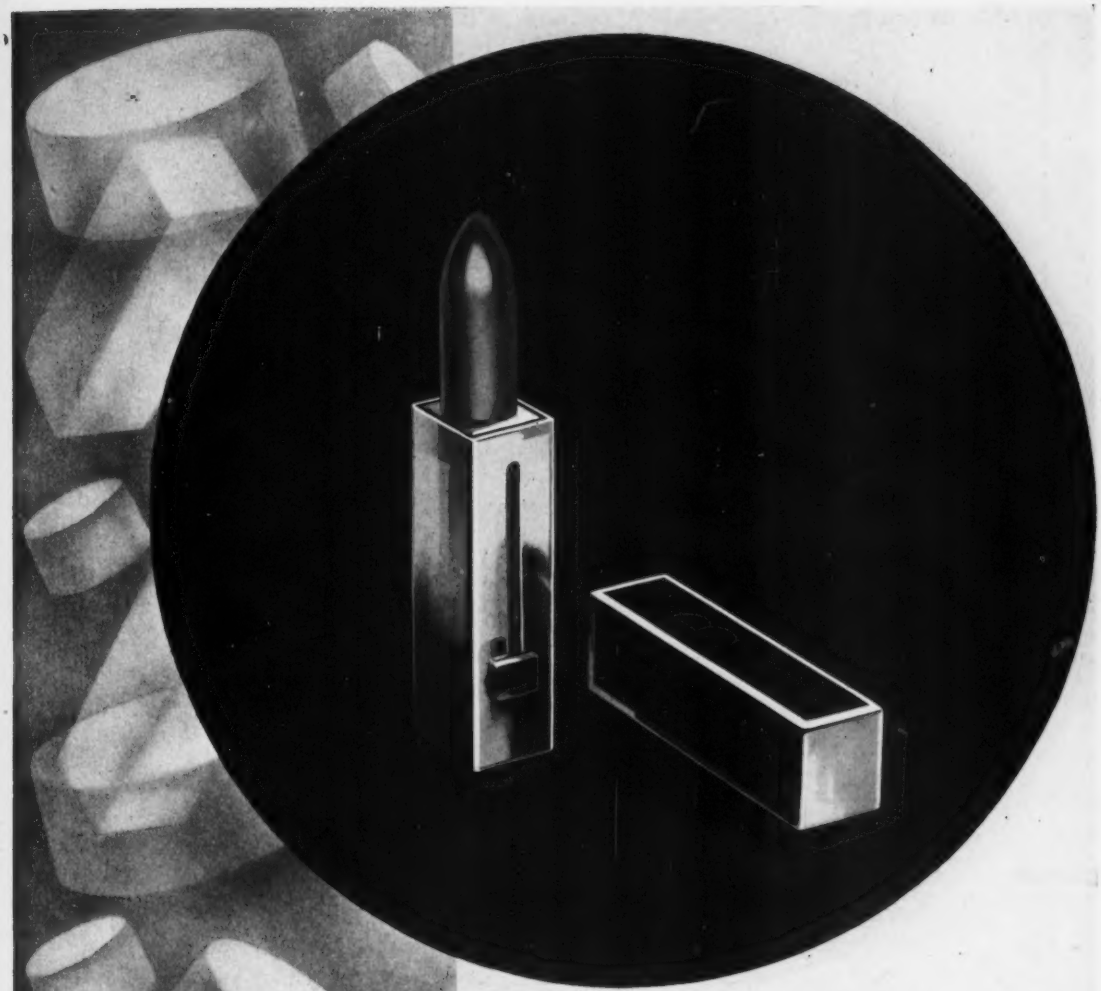
Stocks carried in principal cities



BRIDGEPORT offers a new automatic lipstick container that is the last word in modern design and practicability. Smooth unfailing action, exceptional capacity, and striking appearance combine to make this the outstanding automatic container for 1935.

The BRIDGEPORT
METAL GOODS MFG. CO.
BRIDGEPORT • CONNECTICUT
ESTABLISHED 1909 • TEL. BRIDGEPORT 3-3125

Fabriques de Laire

Paris, France

Established 1878

One of the latest additions to our successful list of powerful floral notes

NARCETONE

(*Narcisse type*)

$12.00 per lb.

Especially valuable in fancy bouquets of the modern type. For use in Extracts, Toilet Waters, Creams and Powders.

NARCETONE pour SAVONS

$6.50 per lb.

For soaps and the lower priced line of perfumery preparations.

J. Mero & Boyveau

Grasse, France

Many perfumers prefer our

Oil Geranium sur Roses

because

1—It is distilled in Grasse from the finest French Geranium

2—It is actually distilled over roses thus thoroughly uniting the essence of rose with the Geranium Oil.

3—The result is an exquisite, velvety finish never obtained by a mere addition of Otto of Rose to ordinary Geranium Oils.

We urge you to try this exceptional product.

Dodge & Olcott Company

180 Varick St. **New York**

Sole American and Canadian distributors

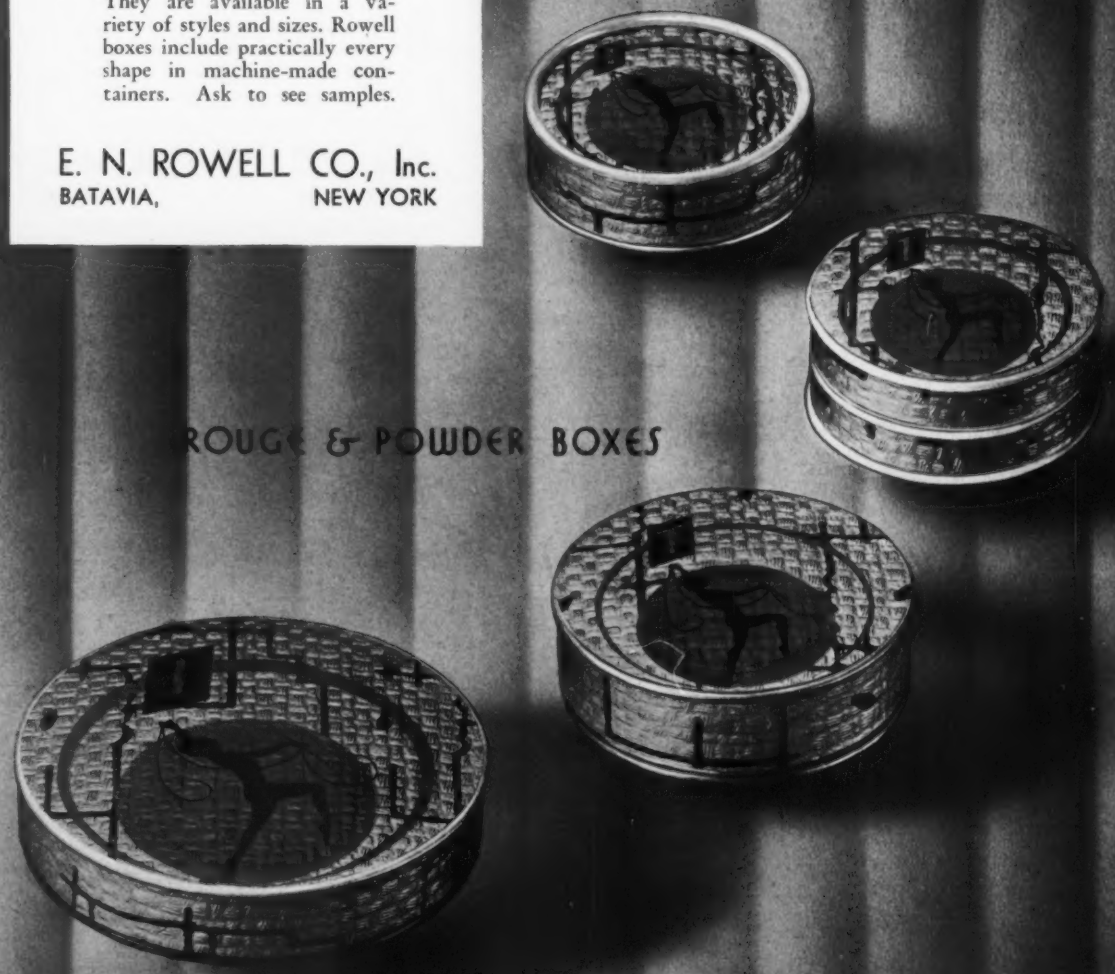
D&O ESTABLISHED IN 1798

"The integrity of the house is reflected in the quality of its products"

ROWELL BOXES

Rowell "rounds" offer economy and smartness as well. They are available in a variety of styles and sizes. Rowell boxes include practically every shape in machine-made containers. Ask to see samples.

E. N. ROWELL CO., Inc.
BATAVIA, NEW YORK



Boxes shown (from front to back) Nos. 367-R, 368-R, 369-R, 370-R

New York Office:
SEWELL H. CORKRAN
30 East 42nd Street
Phone: MUrray Hill 2-3447

Chicago Office:
H. G. MacKAY
180 North Wacker Drive
Phone: RANdolph 0934-0935

Hollywood, Cal. Office:
C. H. E. DUNN
Guaranty Bldg., 6331 Hollywood Blvd.
Phone: Hollywood 0111

Boston Office:
H. P. TUCKER
52 Chauncy Street
Phone: Hancock 0398

Detroit Office: H. E. BROWN, 7376 Grand River Ave.
Phone: Euclid 2211

St. Louis Office: The DICK DUNN Co., Merchandise Mart Bldg.,
12th Blvd. & Spruce St., Phone: Central 3544

Family RESEMBLANCE

WHETHER you have quintuplets, octuplets, or just twins, dress them alike. Experience has proved that a family resemblance is potent in merchandising a line of packages.

That's why all the members of the Bree family have the same label and color scheme and wear striking Armstrong's Caps . . . beautifully lacquered double-shell metal caps on the jars and gay molded plastic caps on the bottles. They are perfectly matched.

Women like these caps because they are convenient . . . smart . . . and don't stick. And the "modern" appearance they lend the packages is a great competitive advantage. Packages like these move quickly; they don't have to wait long for buyers.

Perhaps your packages, too, will look smarter, brighter, with Armstrong's Metal or Molded Caps. The many standard designs offer you a wide choice. Or, if you prefer a private closure, you can have your caps molded to order . . . or lithographed, if you prefer metal caps, with your name and trade-mark.

Ask for full information and prices. Armstrong Cork Products Company, Closure Division, 912 Arch St., Lancaster, Pennsylvania.

A PERFECT MATCH. *Though made from different materials, these metal and molded plastic caps are identical in color—an alluring pastel green—maintaining family identity.*

FREE BOOK!
PASTE ME ON A PENNY POST CARD!

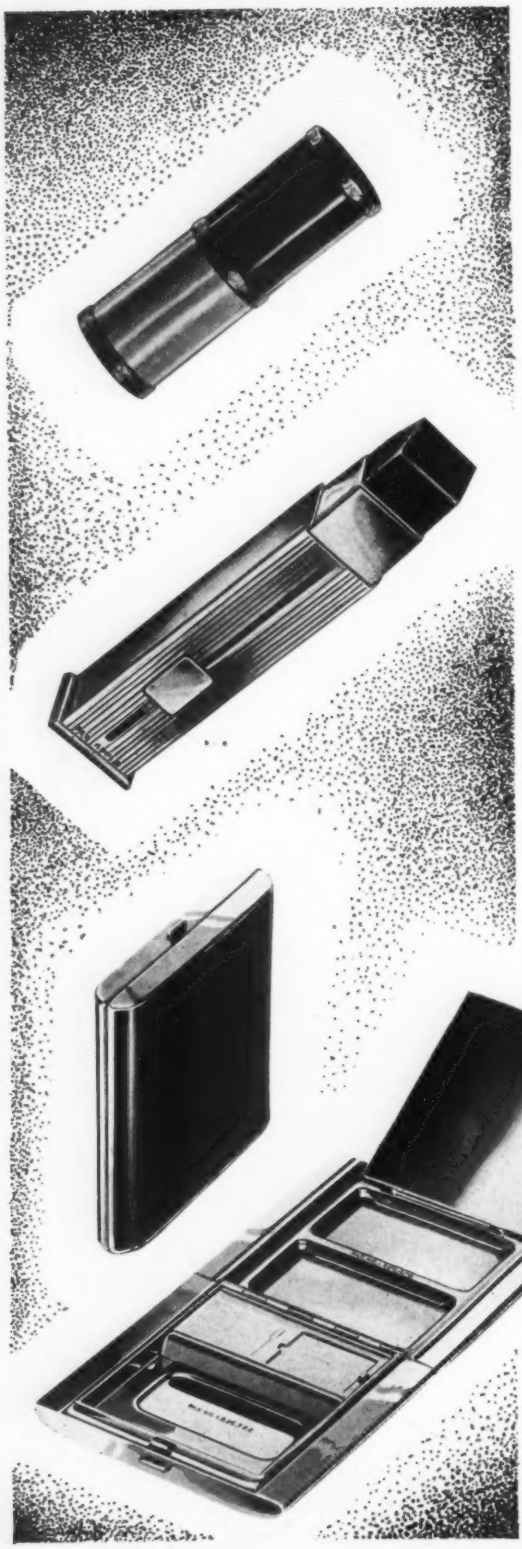
"A Buying Guide to Armstrong's Closures" will help you select the proper closure for your packages.

Sent free upon receipt of this coupon.

ARMSTRONG CORK PRODUCTS COMPANY,
Closure Division,
912 Arch Street, Lancaster, Pa.

Name.....
Street.....
City.....State.....

Armstrong's
MOLDED & METAL CAPS



STYLED by SAGAMOR

There is smartness in every line when it's styled by Sagamor. Combining mechanical ingenuity with fine craftsmanship, Sagamor offers the utmost in appeal. We will be glad to show you Sagamor sales winners for 1935.

SAGAMOR

MANUFACTURERS OF
Compact Cases; Loose Powder Sifters; Lipstick Containers; Rouge Cases; Mascara Cases; Stamped Metal Goods; Novelties.

SAGAMOR
METAL GOODS CORP.
43-01 22nd ST., L. I. CITY, N. Y.

Phone Stillwell 4-4820-1-2 • Cables: Sagmetgo New York, A.B.C. Fifth Edition
Chicago Office: Railway Exchange Bldg. Phones: HARrison 3015-3016

Easter Lily D

A faithful duplication of the flower. For individual use or for blending with Rose, Jasmin or Lilac compounds.

Compagnie Parento, Inc.

Executive Offices and Laboratories

CROTON-ON-HUDSON, N. Y.

NRA MEMBER U.S. WE DO OUR PART

NEW YORK
507 Fifth Avenue

LOS ANGELES
R. F. Eaton, 4803 Everett Ave.

DETROIT
H. E. Brown, 7376 Grand River Ave.

TORONTO
Compagnie Parento, Limited
73 Adelaide St., W., Toronto, Ontario, Canada

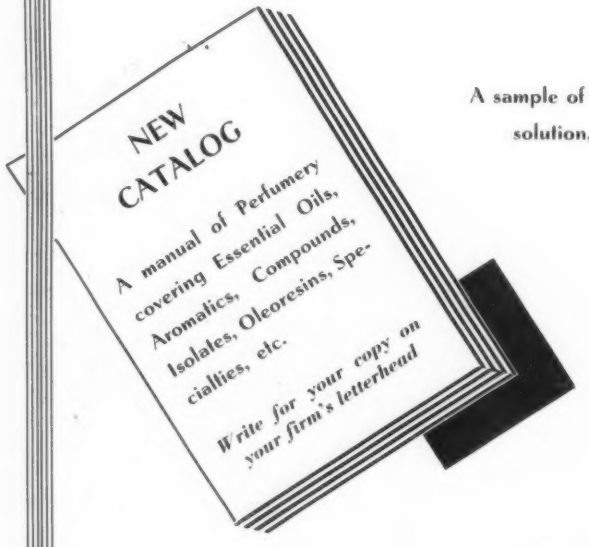
PARENTO

Isobutyrates

have many uses in compounding.

If you are striving for distinctive notes in new creations, we invite your inquiries for the following ISOBUTYRATES:

CITRONELLYL	NONYL
CYCLOHEXYL	OCTYL
ETHYL	PHENYL ETHYL
GERANYL	PROPYL
ISOBUTYL	RHODINYL
LAURYL	SANTALYL
LINALYL	VETYVERYL



A sample of any of the above products in 10% solution, will be forwarded on request.

Compagnie Parento, Inc.

Executive Offices and Laboratories

CROTON-ON-HUDSON, N. Y.

NEW YORK—507 Fifth Avenue

LOS ANGELES
R. F. Eaton, 4803 Everett Ave.

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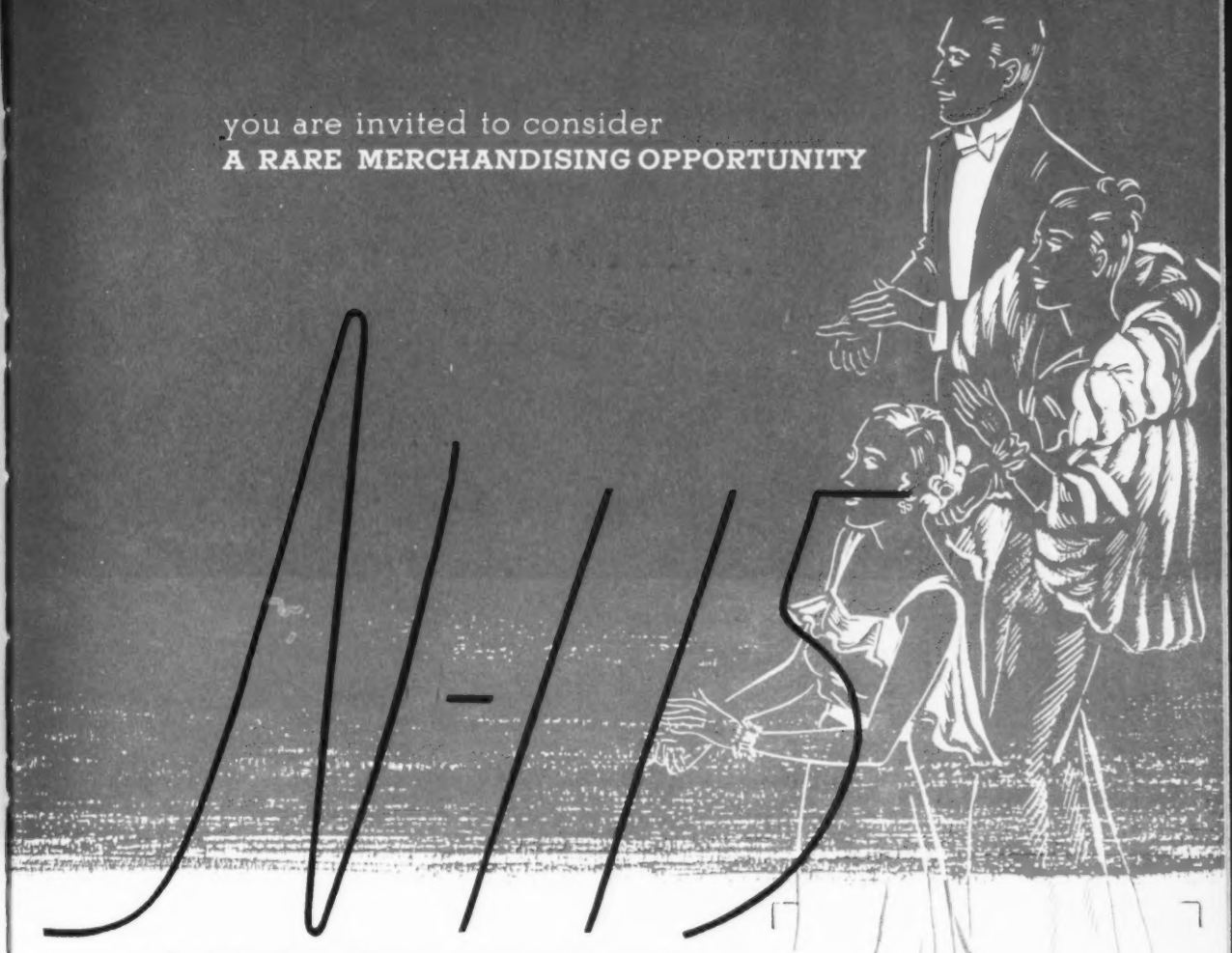
H. E. Brown, 7376 Grand River Ave.

TORONTO
Compagnie Parento, Limited, 73 Adelaide St., W., Toronto, Ontario, Canada

you are invited to consider
A RARE MERCHANDISING OPPORTUNITY



N-115

—a finished perfume composition of the highest type and at the height of fashion

Several of the finest new creations of our house help to make N-115 a masterpiece we are proud to sponsor... Fastidious people in some of the world's fashion centers have greeted it with exceptional enthusiasm. They point out its marvelous balance ... its wonderful tenacity... its complete possession of those fine qualities that make a world-wide seller ... Originally created for perfume, N-115 is worthy of adoption by leading houses as a new odor for a complete line, as it is available in modifications for powders, creams, etc. ALBERT VERLEY, INC., 11 East Austin Avenue, Chicago, Ill. 114 E. 25th St., New York — Mefford Chemical Co., Los Angeles.

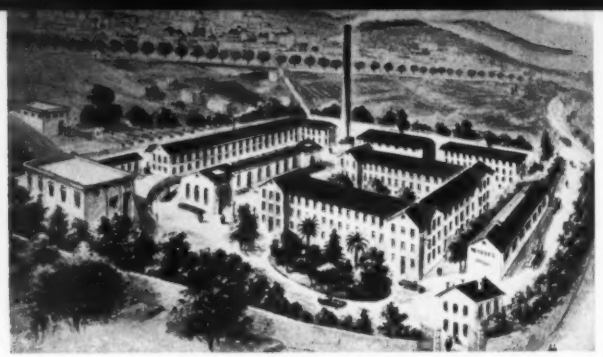
Strong statements, these — but after going over them carefully, I am endorsing every one

President

☆ **ALBERT VERLEY** *aromatics*

Write for liberal sample — or send us a sample of your unscented product.

TOMBAREL FRERES



1837-1935

ALMOST A CENTURY

of steadfast adherence to **quality standards** which have won the respect of perfumers the world over. • For samples and quotations on **natural raw materials,** address the exclusive United States representatives, Albert Verley, Inc. (see preceding page for address.)

ABSOLUTE SUPREME FLOWER OILS

Jasmin • Orange Flower • Rose • Oil Neroli Bigarade Petale • Oil of Orris Concrete • **Lavender** Concrete • Absolute • Oil Lavender St. Ann 48/50% • Oil Lavender Mt. Blanc 38/40% • **Resinoids** for Soap Perfume • Oil Vetivert • Oil Geranium.

ALBERT VERLEY, INC.

Announcing

MICRONIZED ROUGE COMPACT

- The outstanding scientific achievement in the history of rouge making.
- The NEW STANDARD by which others will be measured and appraised.
- No matter how high your expectations—you will not be disappointed.
- When you feel a sample of MICRONIZED ROUGE we are sure you will say "IT'S MASTER PERFECTION."
- Samples of MICRONIZED ROUGE are yours for the ASKING, WE WANT YOU TO BE THE **JUDGE!**

These products are manufactured for the trade exclusively.

Also

MASCARA
(Cosmetique)
Does not run or smart

LIPSTICKS
Super Indelible
(in modern tones)
Super Orange
(two-tone)

POWDERS
for
Face
Dusting Powder
Talcum

FACE CREAMS and LOTIONS
All modern types of the finest quality

COMPACTS
Rouge and Powder

Eyebrow Pencil
Cream Rouge

ULTRA FINE QUALITY

PARIS COSMETICS INC.

Ultra-fine Cosmetics

116 West 14th Street New York, N. Y.

BOXES *that say "quality"*

THE rich simplicity of a beautiful container may seem like an easy thing to attain. The truth is that, as in many fine paintings, the art lies in knowing what to leave out. Creating smart, tailored boxes requires an inherent sense of design and the utmost in good taste.

In both design and production, Electric City offers unusually complete facilities. We will be glad to show you outstanding containers that we are producing for many nationally known cosmetic products.

ELECTRIC CITY BOX COMPANY, INC.

200-210 OAK STREET, BUFFALO, N. Y.

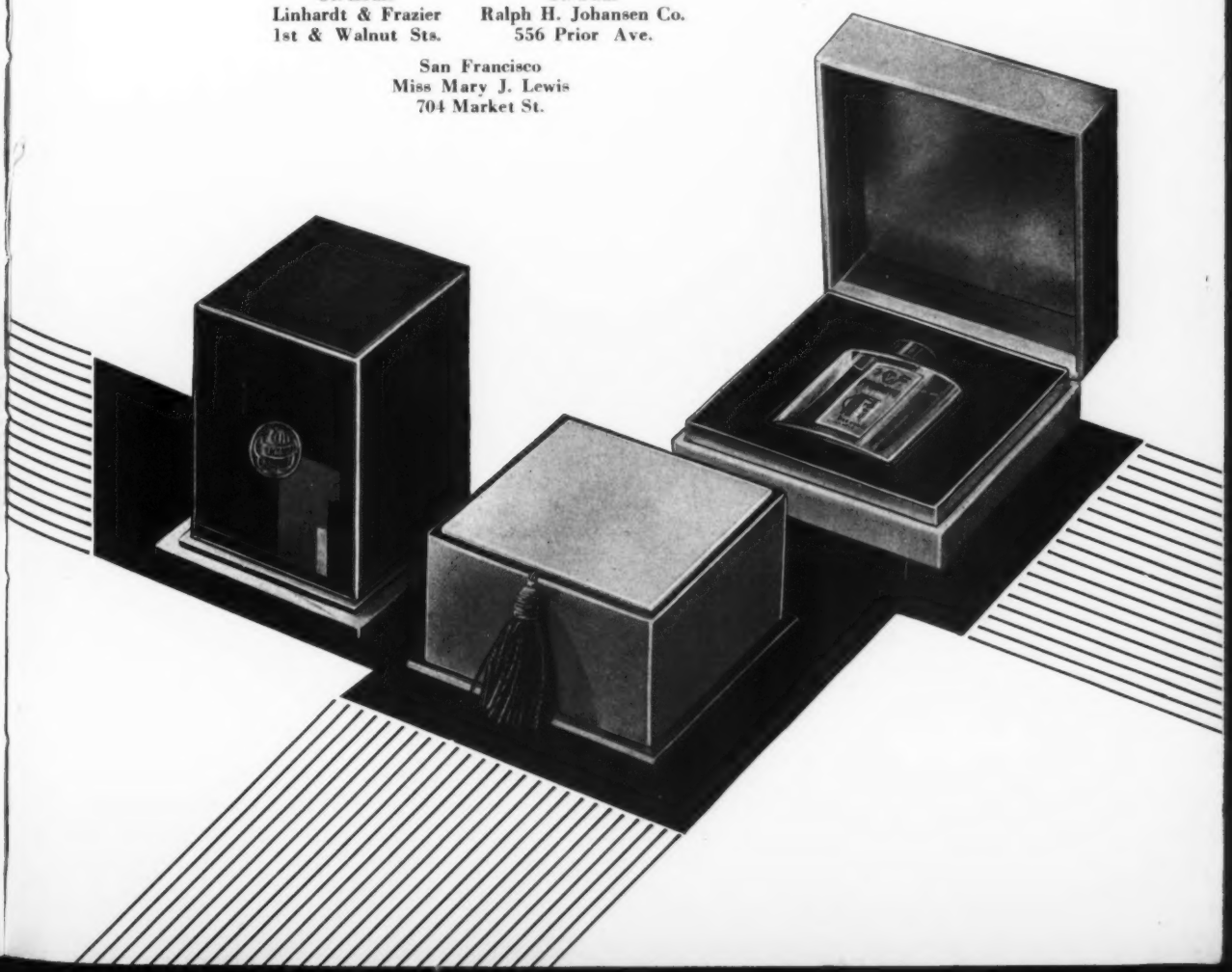
Boston
R. H. Harding
6 Beacon St.

New York Office
551 Fifth Avenue
M. Nusbaum

St. Louis
Linhardt & Frazier
1st & Walnut Sts.

St. Paul
Ralph H. Johansen Co.
556 Prior Ave.

San Francisco
Miss Mary J. Lewis
704 Market St.



SMART . . .
MODERN

Opal Jars

MODERN
SMART . . .

HAZEL-ATLAS Opal Jars make an immediate impression of smartness and cleanliness. Even if the product is a new one, unknown till now, it is already well along the way to popularity if it is packed in a Hazel-Atlas Opal Jar! Women realize with their quick intuition that the manufacturer or dealer who displays such good taste in his packaging is giving them a bona-fide product of merit. Hazel-Atlas Opal Jars are smart and modern in their black and white color. A shelf display always is outstanding. Products in Hazel-Atlas Opal Jars *sell!*

And the smooth white surface of the jar, topped by the shiny black screw top, is the best possible space for your label, harmonizing perfectly with any color.

The overwhelming popularity that Hazel-Atlas Opal Jars have always enjoyed is ample proof of their *selling* power! Look at your product—visualize it in a smart, modern Opal Jar.

And we'll send you samples if you like.

HAZEL-ATLAS GLASS CO.

WHEELING . . . WEST VIRGINIA

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Only the best in RAW MATERIALS *from* DRURY . . . .

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TALC "SIERRA" Snow Cloud Mist	SIERRA TALC CO. Los Angeles Calif.
CASTILE SOAP "LACO" Powdered Granular Bars	LOCKWOOD BRACKETT CO. Boston Mass.
STEARATES Zinc Magnesia Aluminum	PLYMOUTH ORGANIC LABORATORIES New York
VANILLAS AND TONKA BEANS	THURSTON & BRAIDICH New York
GUMS:- Arabic Karaya Tragacanth	
STEARIC ACID Triple Pressed Saponified	HARKNESS & COWING CO. Cincinnati Ohio
ZINC OXIDE Gold Seal U.S.P. White Seal	*Mines et Fonderies de Zinc de la Vieille Montagne* PHILIPP BROTHERS, Inc., NEW YORK
T. L. BRAND PURE WHITE BEESWAX Extra quality, U.S.P. and 100% Pure	THEODOR LEONHARD WAX CO. Haledon, Paterson N. J.

In addition to the above items which we handle as sales agents for our principals, we are engaged, on our own account, in the importation of an extensive line of Raw Materials, carrying spot stocks.

A. C. DRURY & CO., Inc.

CHEMICALS - ESSENTIAL OILS - SYNTHETICS - BOUQUETS - TALC - CLAY - WAX

Cable Address "DRUCO"

DRUCO

219 E. North Water St. Chicago, Illinois

Personality... in PACKAGES

Yes Sir—

Packages have Personality, the same as people. Some attract by their smart, modern appearance, while others repel.

Stanley Embossed Metal and Foil Labels actually embody the three steps in Selling—

1st—Attract Attention—because Stanley Embossed Metal and Foil labels are unusual and have "Lustre" they attract the eye.

2nd—Create Interest—because Stanley has creative ability plus knowledge of combining processes not ordinarily used in the production of metal labels, Stanley metal labeled products look desirable.

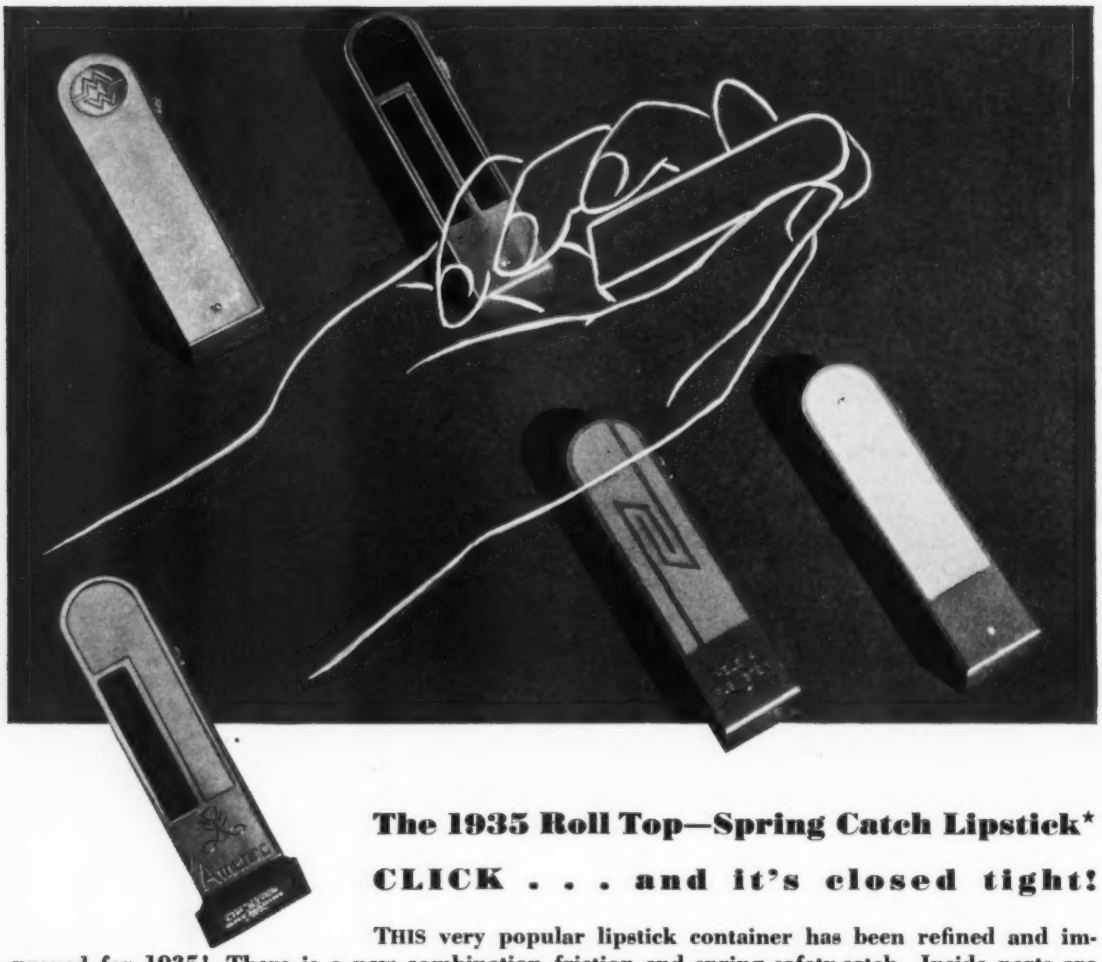
3rd—Impels Desire—Stanley Embossed Metal and Foil labels "are the Outside Evidence of Inside Quality." People just naturally are attracted to Stanley labeled Products.

Use a **Stanley Embossed Metal or Foil Label** and give your products a distinctive, rich-looking appearance that is sure to increase your sales.

People buy largely on impulse. They will always judge values by externals. For this reason, appearance or design is a vital factor in the success of any article sold through dealers.

The Label is the Personality of the Package. It should impart beauty, dignity and eye appeal.

The STANLEY MANUFACTURING CO. • Dayton, Ohio



The 1935 Roll Top—Spring Catch Lipstick*

CLICK . . . and it's closed tight!

THIS very popular lipstick container has been refined and improved for 1935! There is a new combination friction and spring safety-catch. Inside parts are firmly anchored into position. The actuating band has a free but guided channel for operation. The ingenious catch which clicks the lipstick tightly closed prevents all possibility of accidental opening. The closing click is slightly audible — the locking action noticeable — assuring the user that the container is closed to stay, and the lipstick entirely protected from dust and dirt. In the closing motion, the catch takes place within the last one-eighth of an inch. Opening and closing motions are easily made with the thumb or forefinger. Easy one-hand operation has been retained. • The same trim body lines, attractive appearance, and decorative features which characterized earlier models of the Roll Top Lipstick, have been carried over into this 1935 model. Special designs and stampings, and nearly endless combinations of finishes can be furnished on quantity orders. The photograph illustrated gives an idea of the various smart decorative schemes that can be applied to this lipstick. Our representative will show you the new models and demonstrate their features. A call to any Scovill office or a letter to the following address will bring you the whole story. Cosmetic Container Division, Scovill Manufacturing Company, Waterbury, Connecticut.

*The ROLL TOP LIPSTICK *is fully protected by patents and is the exclusive property of Scovill Manufacturing Company*

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SCOVILL

SCOVILL

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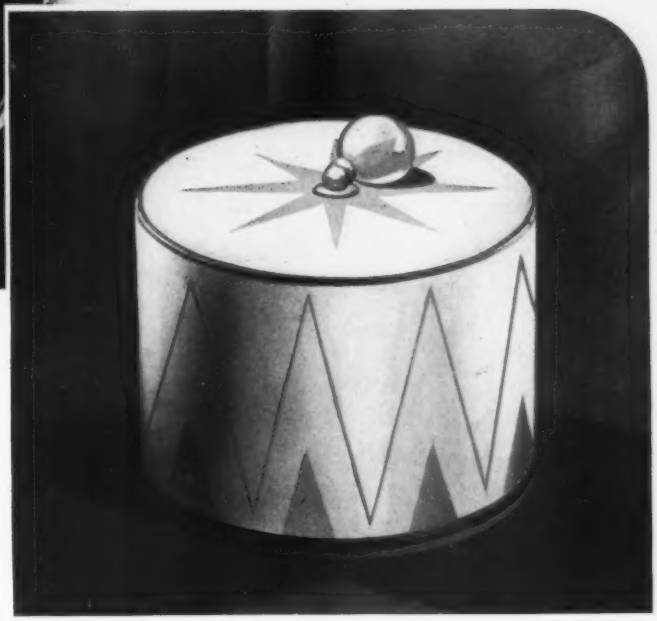
San Francisco Los Angeles IN EUROPE: The Hague, Holland IN CANADA: 334 King Street, E., Toronto, Ontario

First impressions are vital!



FIRST impressions either invite or repel further inspection. Your label or box wrap, if properly designed, is the first to command attention on the Sales shelf.

Consolidated's facilities for producing fine labels, box wraps and displays include a creative designing department, a complete production department, and a staff of trained service men, ready to assist. Send us your present labels and we'll be glad to offer suggestions.

"LET YOUR BUSINESS LIGHT SHINE"

LABELS • BOX WRAPS

•

WINDOW AND COUNTER DISPLAYS

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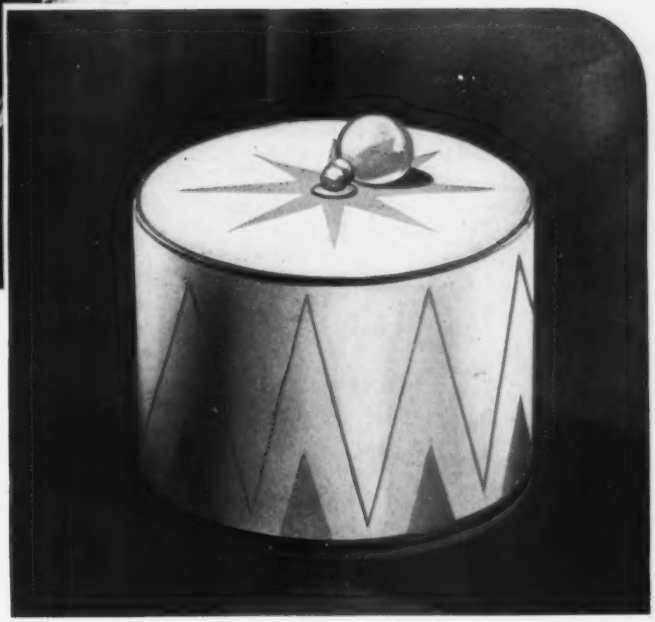
PHONE: PUlaski 5-6700

First impressions are vital!



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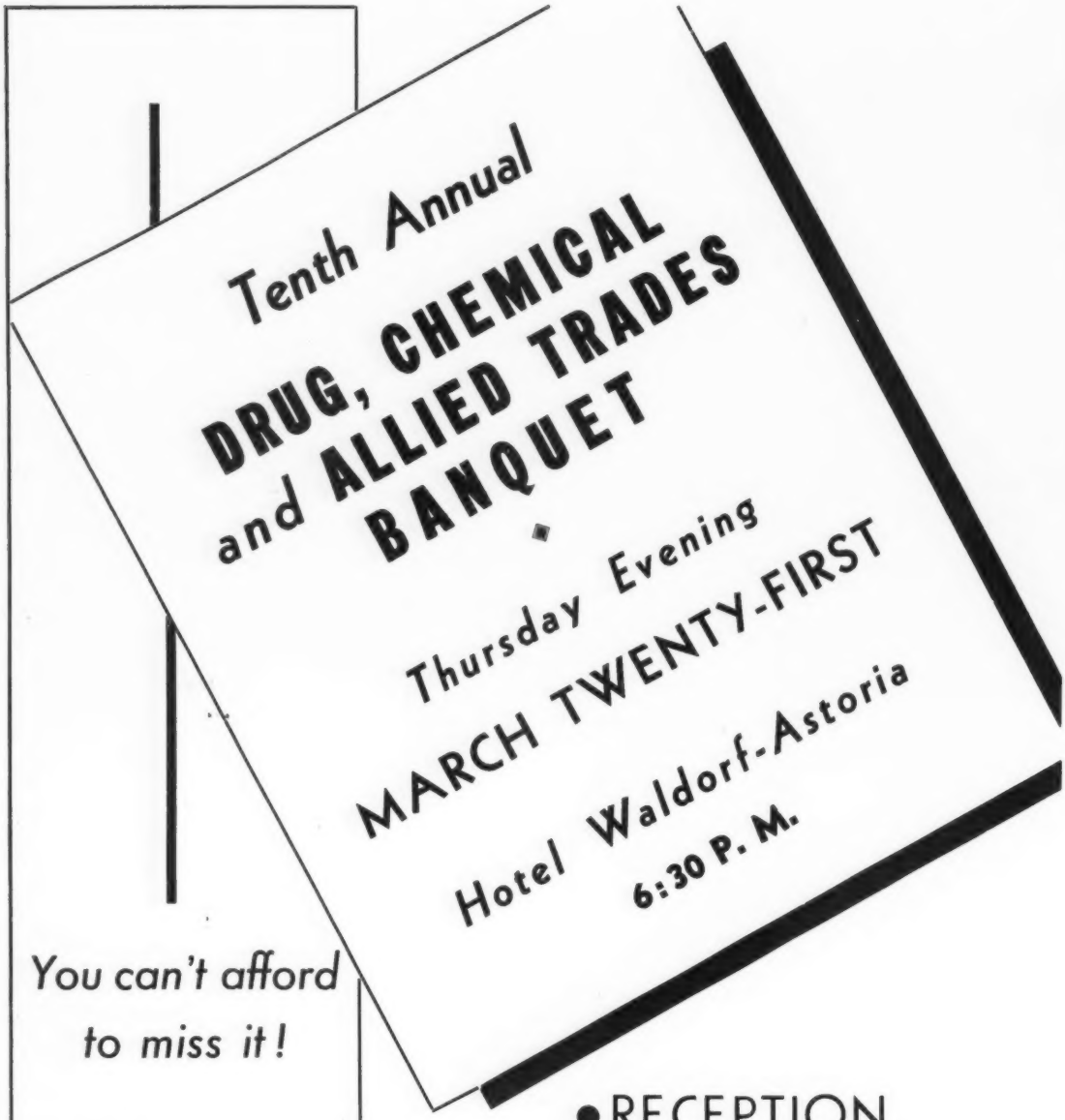

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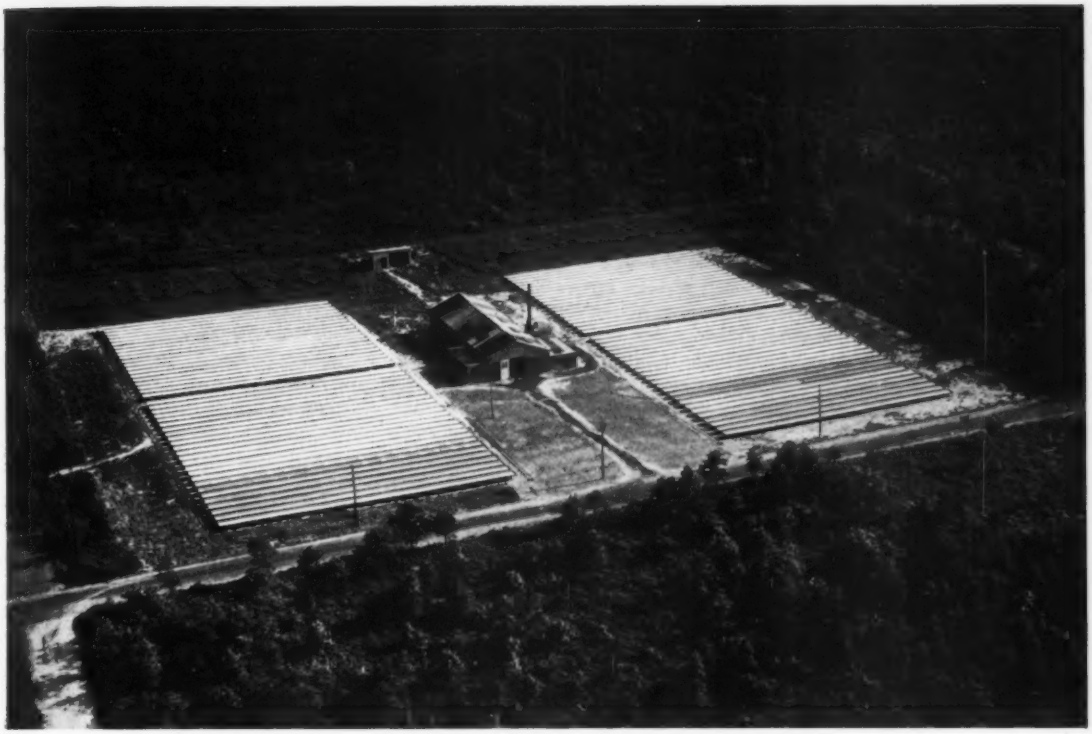

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Tons of Koster Keunen fine beeswax are bleached yearly on these sunlit acres in Sayville, Long Island. With the finest of crude beeswax, and such ideal bleaching conditions, the finished product cannot be other than the finest. Samples and quotations on request.

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APPLICATORS

Creation of special applicators for any product that can be tube-packed is part of the close co-operation you receive when you call for service from Turner.

Pharmaceutical ointments are given new, wider usefulness and salability when offered with applicators. We welcome the opportunity of designing an applicator for your particular product.

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Manufacturers of Collapsible Tubes Since 1898

New Brunswick, New Jersey

Books . . . *of importance to those engaged in the Perfumery, Soap, Toilet Preparation, Flavoring Extract and Allied Industries* . . . . . .

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MANUFACTURERS OF FINE SET-UP BOXES

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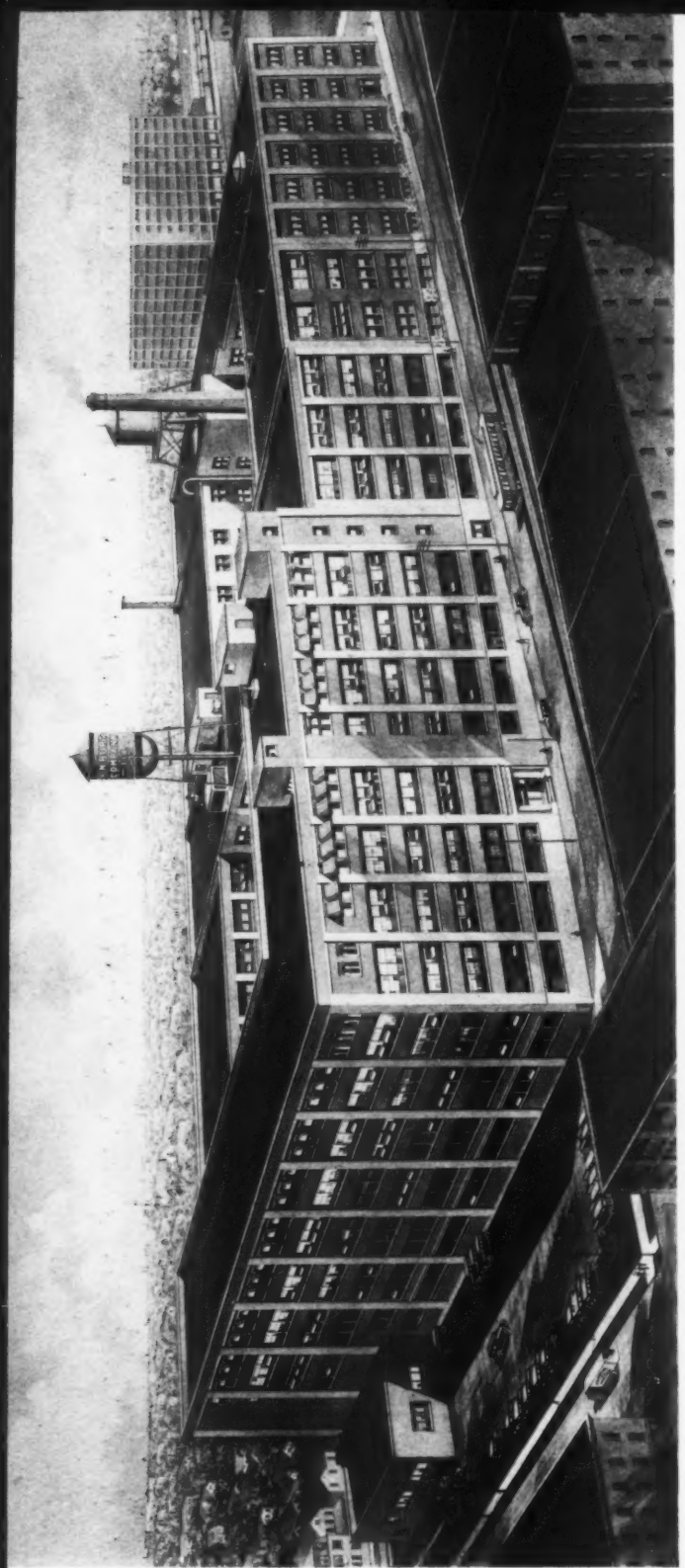

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Paper Boxes **Paper Products**

Buffalo, N. Y.

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VAN DYK & COMPANY

INCORPORATED 1904

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MANUFACTURERS OF SYNTHETIC AROMATIC CHEMICALS
AND
PERFUMERY RAW MATERIAL

~~80 WEST BROADWAY~~
57 WILKINSON AVENUE, JERSEY CITY, N. J.
~~NEW YORK~~

October 30, 1934

The American Perfumer & Essential Oil Review,
432 Fourth Avenue,
New York, N. Y.

Gentlemen:

As advertisers of many years' standing in "The American Perfumer", we have long been impressed with the thoroughness of its coverage of, and its pulling power in, the toilet articles industry. Recently we were given an interesting and a very gratifying illustration of what may be termed the plus-service that your publication renders its advertisers by transcending the limits of its primary sphere of influence.

We received a request for service from a manufacturer in a line entirely foreign to toilet articles. Upon investigation, we found that while he was not a reader of your publication, he was conversant with its authoritative standing in its field. When a sudden need for a perfuming material arose in his business, he promptly consulted your advertising pages, with the result that there is every promise that we will shortly have another substantial account on our books. Furthermore, we have made contact with another industry in which our products can be used to a not inconsiderable extent. Except for the lead that we secured through "The American Perfumer", this industry might have remained a closed book to us.

Our experience as outlined still further strengthens our high regard for your publication as a selling medium for the manufacturer of aromatic products

With all good wishes for your continuing success, we remain,

Cordially,
Van Dyk & Company, Inc.,

Walter Mueller

Synonymous with American Synthetics ISERMANN

WM:L

CLASSIFIED ADVERTISEMENTS

The rates for advertisements in this section are as follows: Business Opportunities, $1.00 per line per insertion; Situations Wanted and Help Wanted, 50c per line per insertion. Please send check with copy. Address all communications to
PERFUMER PUB. CO., 432 Fourth Ave., New York.

BUSINESS OPPORTUNITIES

FOR SALE—either outright, or on royalty basis, established, growing business making and distributing perfume dispensers to department and drug stores. We are the sole patentees of this attractive and efficient bulk perfume dispenser. Our apparatus has completely overcome all of the failings of the old type dispensers. No more evaporation—no more leakage. Equipped with DeVilbiss dispensers, highly illuminated, operates with one master bulb; the equipment we offer is the most eloquent "Silent Salesman" yet given to the trade. Sole reason for selling is ill health of owner. Write in confidence for full details, B. O. No. 2162, care of this journal.

VANILLA BEANS—CLOVES—YLANG YLANG

Marseilles' firm of Sworn Commission Agents with absolutely thorough knowledge of Vanilla Beans, Madagascar Cloves and French Colonial Essential Oil Trades, would like to act as Purchasing Agent for account of reliable U. S. firms. Write first letter giving all particulars to DEISS, 21 Rue Abbe de l'Epee, Marseilles, France.

(*Continued on page* 92)

(Continued from page 90)

SITUATION WANTED

OUTSTANDING SALES DIRECTOR AND EXECUTIVE, now doing outstanding job in cosmetics will consider change after 1st. He has increased his firm's sales more than 200% in 1934. Will consider only sound propositions where the makers of some good product seek National Distribution and are able to carry through. He is familiar with all United States and Foreign Markets and is equipped with experience to proceed directly to extend your sales. Correspondence invited. C. M. Seymour, Fuller & Smith & Ross, Inc., 49 West 45th St., New York City.

CHEMIST—University graduate with graduate school training. Experienced in the manufacture of toiletries, creams, hair tonics, etc. Has managed complete plant. Knows production, packaging, buying. Address S. W. No. 2159, care of this journal.

CHEMIST—10 years' experience. Cosmetic, Perfumes, Tooth Paste, Shaving Cream. Production and laboratory work. Wishes full or part time position. Address S. W. No. 2161, care of this journal.

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SALESMAN for a prominent line of Shampoo, Base and Shaving Cream in bulk. Address H. W. No. 2160, care of this journal.

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CHEMIST: Thoroughly experienced for cosmetic concern. Actual worker wanted to do manufacturing, analysis and research work. Give full particulars in first letter. Address H. W. No. 2163, care of this journal.

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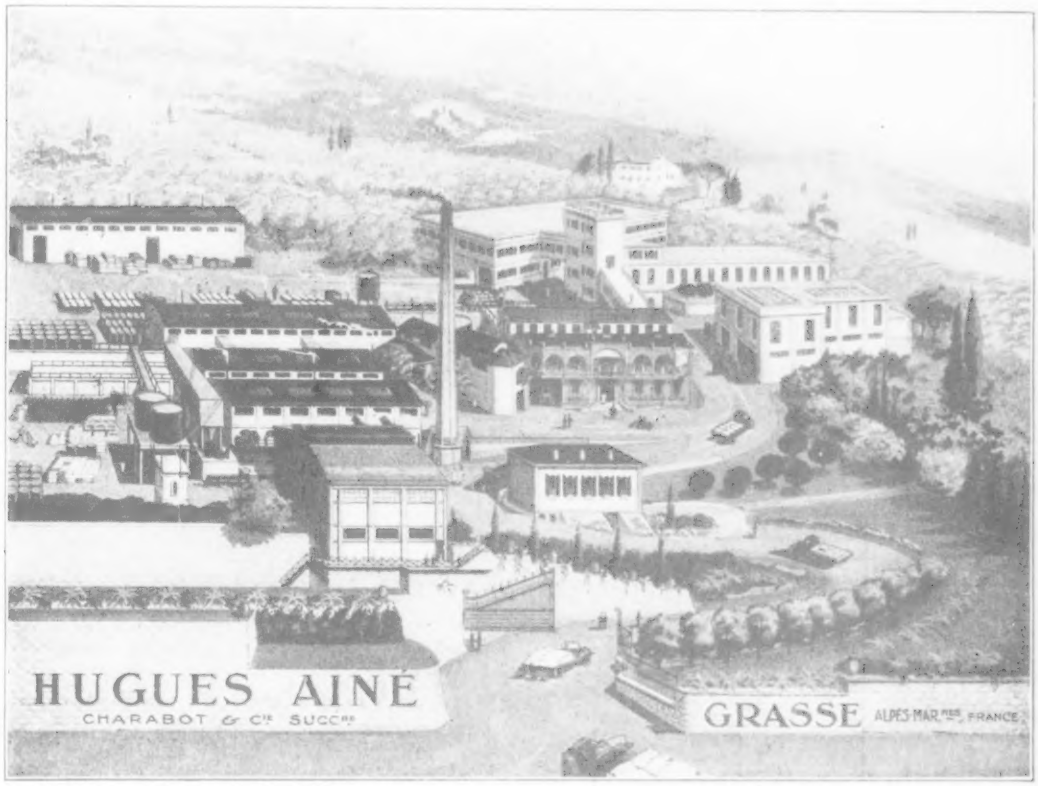

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(*See Also Page 11*)